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SURFACE WATER STATIONS

WRSP Identification Number	USGS Identification Number	Name (USGS)
	09306395	White River near Colorado-Utah State Line, Utah
S-5	09306405	Hell's Hole Canyon Creek at mouth, near Watson, Utah
S-2	09306430	Evacuation Creek near Watson, Utah
S-9	09306605	Southam Canyon Wash near Watson, Utah
S-13	09306610	Southam Canyon Wash at Mouth, near Watson, Utah
S-12	09306625	Asphalt Wash near mouth, near Watson, Utah
S-11	09306700	White River below Asphalt Wash, near Watson, Utah

Sta. 09306395

RESPONSIBILITY FOR SURFACE WATER MONITORING

Station	Monitoring Activity	Responsibility
	Streamflow	
6430, 6700	Continuous monitoring	WRSP
6610	Continuous monitoring during snowmelt and thunderstorm seasons (approximately February through October)	WRSP
6395	Continuous monitoring	USGS
	Suspended Sediment	
6430, 6700	Periodic and opportunistic samples	WRSP
6610	Opportunistic samples	WRSP
6395	Continuous monitoring	USGS
	Water Quality	
6700	Continuous monitoring of temperature and specific conductance	WRSP
6430	Quarterly samples in January, April, July and September; continuous monitoring of temperature and specific conductance	WRSP
6610	Opportunistic samples; continuous monitoring of temperature and specific conductance during snowmelt and thunderstorm seasons	WRSP
6395	Quarterly samples in January, April, July, and September; continuous monitoring of temperature and specific conductance	USGS

Sta. 09306395

STATION 09306395

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE IS 01-27-81

STATION NUMBER 09306395 WHITE R. NR. COLO. STATE LINE, UT. STREAM SOURCE AGENCY USGS
LATITUDE 400050 LONGITUDE 1090448 DRAINAGE AREA 3640.00 DATUM 5030.00 STATE 49 COUNTY 047

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

PROVISIONAL DATA

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	456	190	350	330	666	414	1170	2460	1070	354	345
2	282	419	224	340	360	564	404	1120	2410	1170	332	362
3	281	431	283	330	380	556	424	1020	2290	1440	331	357
4	295	451	420	330	400	490	418	1010	2250	1320	324	337
5	303	459	430	320	390	573	415	1080	2330	1100	326	347
6	319	461	430	360	380	614	448	1140	2510	981	317	342
7	336	451	430	370	370	569	487	1380	2600	895	304	347
8	343	448	420	370	360	591	461	1550	2650	836	293	327
9	324	459	370	380	360	623	413	1590	2710	788	270	359
10	326	453	350	380	380	490	414	1680	2670	718	297	424
11	338	453	350	310	420	481	478	1700	2700	690	314	516
12	338	443	350	340	470	473	445	1990	2820	672	270	426
13	332	433	360	380	500	473	424	2000	2960	623	246	404
14	360	406	350	380	600	438	411	1730	2980	627	234	430
15	392	406	350	370	698	518	438	1590	2810	670	281	403
16	393	415	360	370	734	562	491	1540	2590	614	395	403
17	371	430	360	370	893	490	527	1760	2340	563	420	413
18	380	435	370	360	960	421	553	1870	2190	541	429	409
19	389	438	370	360	1100	414	582	1680	2080	521	415	398
20	438	456	370	350	1300	471	655	1680	2070	497	376	389
21	469	431	370	350	1220	475	724	1580	1910	490	368	386
22	546	459	360	340	892	513	814	2180	1850	464	311	405
23	523	352	360	330	654	565	951	2610	1790	405	285	395
24	484	310	350	330	547	504	973	3030	1710	383	391	402
25	446	403	340	330	440	490	965	3110	1600	406	806	376
26	503	504	330	330	481	504	904	2230	1520	412	646	373
27	490	473	310	330	466	484	962	2340	1430	405	456	362
28	469	420	330	330	504	444	915	2340	1320	372	392	363
29	485	324	380	320	678	428	859	2530	1200	364	376	363
30	436	274	360	320	---	414	1080	2640	1120	338	356	352
31	492	---	350	320	---	413	---	2410	---	341	341	---
TOTAL	12344	12753	11027	10750	17400	15711	18531	57580	65870	20716	11258	11515
MEAN	398	425	356	347	600	507	618	1857	2196	668	363	384
MAX	546	504	430	380	1300	666	1080	3110	2980	1440	806	516
MIN	281	274	190	310	330	413	404	1010	1120	338	234	327
AC-FT	24480	25300	21870	21320	34510	31160	36760	114200	130700	41090	22330	22840

CAL YR 1979 TOTAL 274973 MEAN 757 MAX 4230 MIN 190 AC-FT 555100
WTR YR 1980 TOTAL 265455 MEAN 725 MAX 3110 MIN 190 AC-FT 526500

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

WATER QUALITY ANALYSIS

12-1-79 LAB ID # 293081 RECORD # 34625

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090448 00
DATE OF COLLECTION: BEGIN--791009 END-- TIME--1700
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS:
COLL BY D.M.BATTY COND METER BECKMAN MDL RB338 SER #22080 D.O. METER YSI MDL 57 W-316009. PH METER LEEDS NORTHRUP MDL 7417 W-332878

#1025, 1031

AIR TEMP (DEG C)		21.0	PHOS ORTHO DIS AS P	MG/L	0.01
ALK,TOT(CACO3)	MG/L	180	PHOSPHATE DIS ORTHO	MG/L	0.03
ANALYZING AGENCY		80020	POTASSIUM DISS	MG/L	2.5
BORON DISSOLVED	UG/L	70	POTASSIUM 40,D.PCI/L		1.9
CALCIUM DISS	MG/L	73	RESIDUE DIS CALC SUM	MG/L	514
CHLORIDE DISS	MG/L	41	RESIDUE DIS TON/AFT		0.70
FLUORIDE DISS	MG/L	0.4	RESIDUE DIS TON/DAY		457
HARDNESS NONCARB	MG/L	110	SAR		1.5
HARDNESS TOTAL	MG/L	290	SILICA DISSOLVED	MG/L	12
IRON DISSOLVED	UG/L	20	SODIUM + POTASSIUM	MG/L	63
MAGNESIUM DISS	MG/L	27	SODIUM DISS	MG/L	60
MANGANESE DISSOLVED	UG/L	3	SODIUM PERCENT		31
NO2+NO3 AS N DISS	MG/L	0.03	SP. CONDUCTANCE FLD		760
OXYGEN DISSOLVED	MG/L	8.1	SP. CONDUCTANCE LAB		822
PH FIELD		8.3	STREAMFLOW(CFS)-INST		329
PH LAB		8.3	SULFATE DISS	MG/L	190
			WATER TEMP (DEG C)		15.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	73	3.643	CHLORIDE DISS	41	1.157
MAGNESIUM DISS	27	2.221	FLUORIDE DISS	0.4	0.021
POTASSIUM DISS	2.5	0.064	SULFATE DISS	190	3.956
SODIUM DISS	60	2.610	ALK,TOT(CACO3)	180	3.596
			NO2+NO3 AS N D	0.03	0.002
	TOTAL	8.538		TOTAL	8.732

PERCENT DIFFERENCE = -1.13

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

WATER QUALITY ANALYSIS

4-2-80 LAB ID # 44006 RECORD # 69487

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090448 00
DATE OF COLLECTION: BEGIN--800108 END-- TIME--1430
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLLECTED BY D.M. BATTY

1025, 1031 $ 48.45

AIR TEMP (DEG C)		4.5	PHOS ORTHO DIS AS P	MG/L	0.00
ALK,TOT(CACO3)	MG/L	180	PHOSPHATE DIS ORTHO	MG/L	0.00
ANALYZING AGENCY		80020	POTASSIUM DISS	MG/L	1.5
BORON DISSOLVED	UG/L	50	POTASSIUM 40,D.PCI/L		1.1
CALCIUM DISS	MG/L	66	RESIDUE DIS CALC SUM	MG/L	467
CHLORIDE DISS	MG/L	37	RESIDUE DIS TON/AFT		0.64
FLUORIDE DISS	MG/L	0.2	RESIDUE DIS TON/DAY		449
HARDNESS NONCARB	MG/L	75	SAR		1.6
HARDNESS TOTAL	MG/L	260	SILICA DISSOLVED	MG/L	14
IRON DISSOLVED	UG/L	< 10	SODIUM + POTASSIUM	MG/L	59
MAGNESIUM DISS	MG/L	22	SODIUM DISS	MG/L	57
MANGANESE DISSOLVED	UG/L	2	SODIUM PERCENT		33
NO2+NO3 AS N DISS	MG/L	0.27	SP. CONDUCTANCE FLD		810
OXYGEN DISSOLVED	MG/L	11.8	SP. CONDUCTANCE LAB		757
PH FIELD		7.8	STREAMFLOW(CFS)-INST		356
PH LAB		8.2	SULFATE DISS	MG/L	160
			WATER TEMP (DEG C)		0.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	66	3.293	CHLORIDE DISS	37	1.044
MAGNESIUM DISS	22	1.810	FLUORIDE DISS	0.2	0.011
POTASSIUM DISS	1.5	0.038	SULFATE DISS	160	3.331
SODIUM DISS	57	2.480	ALK,TOT(CACO3)	180	3.596
			NO2+NO3 AS N D	0.27	0.019
TOTAL		7.621	TOTAL		8.001

PERCENT DIFFERENCE = -2.43

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

WATER QUALITY ANALYSIS

4-19-80 LAB ID # 79072 RECORD # 76299

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090448 00
DATE OF COLLECTION: BEGIN--800314 END-- TIME--1200
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLLECTED BY D.M.BATTY-COND METER BECKMAN MD RB338 SER# 22080-PH
METER LEEDS-NORTHRUP W-332880 DO METER YSI MDL 57 W-316009

1023 $48.80

AIR TEMP (DEG C)		7.0	POTASSIUM DISS	MG/L	2.6
ALK,TOT(CACO3)	MG/L	210	POTASSIUM 40,D.PCI/L		1.9
ANALYZING AGENCY		80020	RESIDUE DIS CALC SUM	MG/L	664
BORON DISSOLVED	UG/L	70	RESIDUE DIS TON/AFT		0.90
CALCIUM DISS	MG/L	77	RESIDUE DIS TON/DAY		807
CHLORIDE DISS	MG/L	49	SAR		2.4
FLUORIDE DISS	MG/L	0.2	SILICA DISSOLVED	MG/L	13
HARDNESS NONCARB	MG/L	130	SODIUM + POTASSIUM	MG/L	100
HARDNESS TOTAL	MG/L	340	SODIUM DISS	MG/L	100
MAGNESIUM DISS	MG/L	35	SODIUM PERCENT		39
NO2+NO3 AS N DISS	MG/L	0.12	SP. CONDUCTANCE FLD		1000
OXYGEN DISSOLVED	MG/L	9.6	SP. CONDUCTANCE LAB		1011
PH FIELD		8.3	STREAMFLOW(CFS)-INST		450
PH LAB		8.3	SULFATE DISS	MG/L	260
PHOSPHORUS DIS AS P	MG/L	0.02	WATER TEMP (DEG C)		4.5

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	77	3.842	CHLORIDE DISS	49	1.382
MAGNESIUM DISS	35	2.879	FLUORIDE DISS	0.2	0.011
POTASSIUM DISS	2.6	0.066	SULFATE DISS	260	5.413
SODIUM DISS	100	4.350	ALK,TOT(CACO3)	210	4.196
			NO2+NO3 AS N D	0.12	0.009
TOTAL		11.138	TOTAL		11.010

PERCENT DIFFERENCE = 0.58

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 138040 RECORD-# 90895

7-3-80

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090443 00
DATE OF COLLECTION: BEGIN--800404 END-- TIME--1130
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLL BY D.A. BATTY, COND METER BECKMAN MDL RB338,PH METER CORNING MDL 6104, SER #1378, D.O. METER YSI MDL. 057. W-316009
#1025, #1031 #48.45

AIR TEMP (DEG C)		8.5	PHOS DIS ORTHO AS P	MG/L	0.01
ALK,TOT(CACO3)	MG/L	200	PHOS.DIS ORTHO -PO4	MG/L	0.03
ANALYZING AGENCY		80020	POTASSIUM DISS	MG/L	2.2
BORON DISSOLVED	UG/L	70	POTASSIUM 40,D.PCI/L		1.6
CALCIUM DISS	MG/L	80	RESIDUE DIS CALC SUM	MG/L	621
CHLORIDE DISS	MG/L	46	RESIDUE DIS TON/AFT		0.84
FLUORIDE DISS	MG/L	0.3	RESIDUE DIS TON/DAY		677
HARDNESS NONCARB	MG/L	150	SAR		1.9
HARDNESS TOTAL	MG/L	350	SILICA DISSOLVED	MG/L	14
IRON DISSOLVED	UG/L	30	SODIUM DISS	MG/L	82
MAGNESIUM DISS	MG/L	36	SODIUM PERCENT		34
MANGANESE DISSOLVED	UG/L	2	SP. CONDUCTANCE FLD		1000
NITR DIS NO2+NO3 -N	MG/L	0.04	SP. CONDUCTANCE LAB		990
OXYGEN DISSOLVED	MG/L	10.4	STREAMFLOW(CFS)-INST		404
PH FIELD		7.9	SULFATE DISS	MG/L	240
PH LAB		8.4	WATER TEMP (DEG C)		5.5

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	80	3.992	CHLORIDE DISS	46	1.298
MAGNESIUM DISS	36	2.961	FLUORIDE DISS	0.3	0.016
POTASSIUM DISS	2.2	0.056	SULFATE DISS	240	4.997
SODIUM DISS	82	3.567	ALK,TOT(CACO3)	200	3.996
			NITR DIS NO2+N	0.04	0.003
TOTAL		10.577	TOTAL		10.309

PERCENT DIFFERENCE = 1.26

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 165004 RECORD-# 99947

7-380

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090448 00
DATE OF COLLECTION: BEGIN--800521 END-- TIME--1530
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLLECTED BY D.M.BATTY,5-21-80.COND METER BECKMAN MDL RB338,PH METER
CORNING MDL 610A SER #1378,DO METER YSI MDL 57 #-316009

#1033 $48.80

AIR TEMP (DEG C)		25.5	PHOS DIS (TOT) AS P	MG/L	0.02
ALK,TOT(CACO3)	MG/L	150	POTASSIUM DISS	MG/L	1.7
ANALYZING AGENCY		80020	POTASSIUM 40,D.PCI/L		1.3
BORON DISSOLVED	UG/L	60	RESIDUE DIS CALC SUM	MG/L	340
CALCIUM DISS	MG/L	46	RESIDUE DIS TON/AFT		0.46
CHLORIDE DISS	MG/L	10	RESIDUE DIS TON/DAY		1560
FLUORIDE DISS	MG/L	0.2	SAR		1.1
HARDNESS NONCARB	MG/L	51	SILICA DISSOLVED	MG/L	13
HARDNESS TOTAL	MG/L	200	SODIUM DISS	MG/L	36
MAGNESIUM DISS	MG/L	21	SODIUM PERCENT		28
NITR DIS NO2+NO3 -N	MG/L	0.31	SP. CONDUCTANCE FLD		560
OXYGEN DISSOLVED	MG/L	7.8	SP. CONDUCTANCE LAB		562
PH FIELD		7.9	STREAMFLOW(CFS)-INST		1700
PH LAB		8.2	SULFATE DISS	MG/L	120
			WATER TEMP (DEG C)		16.5

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	46	2.295	CHLORIDE DISS	10	0.282
MAGNESIUM DISS	21	1.727	FLUORIDE DISS	0.2	0.011
POTASSIUM DISS	1.7	0.043	SULFATE DISS	120	2.498
SODIUM DISS	36	1.566	ALK,TOT(CACO3)	150	2.997
			NITR DIS NO2+N	0.31	0.022
TOTAL		5.632	TOTAL		5.810

PERCENT DIFFERENCE = -1.55

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 169129 RECORD-# 101364

8-11-80

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090448 00
DATE OF COLLECTION: BEGIN--800606 END-- TIME--1400
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLLECTED BY DM BATTY 6-6-80. COND. METER BECKMAN MDL RB338, PH METER CORNING MDL 610A SER # 1378, DO METER YSI MDL 57, W-316009

#1064, #1023 $131.25

AIR TEMP (DEG C)		25.5	PH FIELD		7.8
ALK,TOT(CACO3)	MG/L	130	PH LAB		8.0
ALUMINUM DISSOLVED	UG/L	100	POTASSIUM DISS	MG/L	1.2
ANALYZING AGENCY		80020	POTASSIUM 40,D.PCI/L		0.9
ARSENIC DISSOLVED	UG/L	1	RESIDUE DIS CALC SUM	MG/L	227
CADMIUM DISSOLVED	UG/L	< 1	RESIDUE DIS TON/AFT		0.31
CALCIUM DISS	MG/L	38	RESIDUE DIS TON/DAY		1520
CHLORIDE DISS	MG/L	7.3	SAR		0.7
CHROMIUM DISSOLVED	UG/L	0	SELENIUM DISSOLVED	UG/L	1
COPPER DISSOLVED	UG/L	10	SILICA DISSOLVED	MG/L	11
FLUORIDE DISS	MG/L	0.1	SODIUM DISS	MG/L	19
HARDNESS NONCARB	MG/L	14	SODIUM PERCENT		22
HARDNESS TOTAL	MG/L	140	SP. CONDUCTANCE FLD		380
LEAD DISSOLVED	UG/L	0	SP. CONDUCTANCE LAB		359
MAGNESIUM DISS	MG/L	12	STREAMFLOW(CFS)-INST		2480
MERCURY DISSOLVED	UG/L	0.0	SULFATE DISS	MG/L	57
NITR DIS NO2+NO3 -N	MG/L	0.73	WATER TEMP (DEG C)		14.5
OXYGEN DISSOLVED	MG/L	8.1	ZINC DISSOLVED	UG/L	20

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	38	1.896	CHLORIDE DISS	7.3	0.206
MAGNESIUM DISS	12	0.987	FLUORIDE DISS	0.1	0.005
POTASSIUM DISS	1.2	0.031	SULFATE DISS	57	1.187
SODIUM DISS	19	0.827	ALK,TOT(CACO3)	130	2.597
			NITR DIS NO2+N	0.73	0.052
TOTAL		3.741	TOTAL		4.047

PERCENT DIFFERENCE = -3.94

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 211099 RECORD-# 117023

8-24-80

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090448 00
DATE OF COLLECTION: BEGIN--800722 END-- TIME--1500
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLLECTED BY D.M. BATTY 7-22-80; COND METER BECKMAN MDL RB338;
CORNING P.H. METER MDL 610A SER #1378; D.O. METER YSI MDL 57 W-316009
#1025, #1031 #56.74

AIR TEMP (DEG C)		36.0	PHOS DIS (TOT) AS P	MG/L	0.02
ALK,TOT(CACO3)	MG/L	210	PHOS DIS ORTHO AS P	MG/L	0.00
ANALYZING AGENCY		80020	PHOS.DIS ORTHO -PO4	MG/L	0.00
BORON DISSOLVED	UG/L	60	POTASSIUM DISS	MG/L	2.5
CALCIUM DISS	MG/L	66	POTASSIUM 40,D.PCI/L		1.9
CHLORIDE DISS	MG/L	29	RESIDUE DIS CALC SUM	MG/L	470
FLUORIDE DISS	MG/L	0.4	RESIDUE DIS TON/AFT		0.64
HARDNESS NONCARB	MG/L	58	RESIDUE DIS TON/DAY		591
HARDNESS TOTAL	MG/L	270	SAR		1.5
IRON DISSOLVED	UG/L	20	SILICA DISSOLVED	MG/L	14
MAGNESIUM DISS	MG/L	25	SODIUM DISS	MG/L	57
MANGANESE DISSOLVED	UG/L	3	SODIUM PERCENT		31
NITR DIS NO2+NO3 -N	MG/L	0.00	SP. CONDUCTANCE FLD		750
OXYGEN DISSOLVED	MG/L	7.2	SP. CONDUCTANCE LAB		760
PH FIELD		8.3	STREAMFLOW(CFS)-INST		466
PH LAB		8.3	SULFATE DISS	MG/L	150
			WATER TEMP (DEG C)		23.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	66	3.293	CHLORIDE DISS	29	0.818
MAGNESIUM DISS	25	2.057	FLUORIDE DISS	0.4	0.021
POTASSIUM DISS	2.5	0.064	SULFATE DISS	150	3.123
SODIUM DISS	57	2.480	ALK,TOT(CACO3)	210	4.196
TOTAL		7.893	TOTAL		8.158

PERCENT DIFFERENCE = -1.65

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 251260 RECORD-# 134073

10-8-80

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090448 00
DATE OF COLLECTION: BEGIN--800827 END-- TIME--1600
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLL BY D.M. BATTY & KK LINN. 08-27-80 COND METER BECKMAN MDL RB3338 W-328106. PH METER CORNING MDL 610A. SER #1378

AIR TEMP (DEG C)		30.0	PHOS DIS (TOT) AS P	MG/L	0.02
ALK,TOT(CACO3)	MG/L	210	POTASSIUM DISS	MG/L	3.7
ANALYZING AGENCY		80020	POTASSIUM 40,D.PCI/L		2.8
BORON DISSOLVED	UG/L	120	RESIDUE DIS CALC SUM	MG/L	573
CALCIUM DISS	MG/L	79	RESIDUE DIS TON/AFT		0.78
CHLORIDE DISS	MG/L	38	RESIDUE DIS TON/DAY		675
FLUORIDE DISS	MG/L	0.4	SAR		1.8
HARDNESS NONCARB	MG/L	110	SILICA DISSOLVED	MG/L	14
HARDNESS TOTAL	MG/L	320	SODIUM DISS	MG/L	72
MAGNESIUM DISS	MG/L	30	SODIUM PERCENT		33
NITR DIS NO2+NO3	-N MG/L	0.00	SP. CONDUCTANCE FLD		970
PH FIELD		7.8	SP. CONDUCTANCE LAB		933
PH LAB		8.5	STREAMFLOW(CFS)-INST		436
			SULFATE DISS	MG/L	210

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	79	3.942	CHLORIDE DISS	38	1.072
MAGNESIUM DISS	30	2.468	FLUORIDE DISS	0.4	0.021
POTASSIUM DISS	3.7	0.095	SULFATE DISS	210	4.372
SODIUM DISS	72	3.132	ALK,TOT(CACO3)	210	4.196
TOTAL		9.637	TOTAL		9.661

PERCENT DIFFERENCE = -0.13

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 270004 RECORD-# 159

SAMPLE LOCATION: WHITE R. NR. COLO. STATE LINE, UT.
STATION ID: 09306395 LAT.LONG.SEQ.: 400050 1090448 00
DATE OF COLLECTION: BEGIN--800918 END-- TIME--1430
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLLECTED BY D M BATTY 9-18-80 COND METER BECKMAN MDL R133338 W-328106 PH METER CORNING MDL.610A SER#1378 DO METER YSI MDL 57 W-316009

AIR TEMP (DEG C)		19.0	PH FIELD		8.3
ALK,TOT(CACO3)	MG/L	180	PH LAB		8.3
ALUMINUM DISSOLVED	UG/L	10	PHOS DIS (TOT) AS P	MG/L	0.01
ANALYZING AGENCY		80020	POTASSIUM DISS	MG/L	1.8
ARSENIC DISSOLVED	UG/L	1	POTASSIUM 40,D.PCI/L		1.3
BORON DISSOLVED	UG/L	60	RESIDUE DIS CALC SUM	MG/L	474
CADMIUM DISSOLVED	UG/L	1	RESIDUE DIS TON/AFT		0.64
CALCIUM DISS	MG/L	63	RESIDUE DIS TON/DAY		517
CHLORIDE DISS	MG/L	34	SAR		1.6
CHROMIUM DISSOLVED	UG/L	0	SELENIUM DISSOLVED	UG/L	1
COPPER DISSOLVED	UG/L	3	SILICA DISSOLVED	MG/L	12
FLUORIDE DISS	MG/L	0.3	SODIUM DISS	MG/L	59
HARDNESS NONCARB	MG/L	84	SODIUM PERCENT		33
HARDNESS TOTAL	MG/L	260	SP. CONDUCTANCE FLD		780
LEAD DISSOLVED	UG/L	0	SP. CONDUCTANCE LAB		769
MAGNESIUM DISS	MG/L	26	STREAMFLOW(CFS)-INST		404
MERCURY DISSOLVED	UG/L	0.0	SULFATE DISS	MG/L	170
NITR DIS NO2+NO3 -N	MG/L	0.00	WATER TEMP (DEG C)		16.0
OXYGEN DISSOLVED	MG/L	8.0	ZINC DISSOLVED	UG/L <	3

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	63	3.144	CHLORIDE DISS	34	0.959
MAGNESIUM DISS	26	2.139	FLUORIDE DISS	0.3	0.016
POTASSIUM DISS	1.8	0.046	SULFATE DISS	170	3.539
SODIUM DISS	59	2.567	ALK,TOT(CACO3)	180	3.596
TOTAL		7.695	TOTAL		8.111

PERCENT DIFFERENCE = -1.35

STATION 09306405

Station 09306405 Hells Hole Canyon Creek
at Mouth, near Watson, Utah

All days zero flow except the following:

Feb.	18, 1980	1.5 cfs
	19	2.0
	20	0.5
July	1	1.0
	2	0.5
Aug.	23	0.5
	24	0
	25	10.0

Monthly totals

Month	Total, cfs	Mean	Ac-Ft
Feb.	4.0	0.14	7.9
July	1.5	0.048	3.0
Aug.	10.5	0.34	21.
CAL YR 1979	27.27	0.075	54.
WTR YR 1980	16.0	0.044	32.0

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 251602 RECORD-# 134657

SAMPLE LOCATION: HELL'S HOLE CAN AT MOUTH NR WATSON UT
STATION ID: [redacted] LAT.LONG.SEQ.: 395826 1090638 01
DATE OF COLLECTION: BEGIN--800815 END-- TIME--1200
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLL. BY B.D. SHEFFER-D.M. BATTY 08-15-80, PH METER CORNING MDL 610A SER. #1376. COND METER BECKMAN MDL RB3338 W#=526106.

AIR TEMP (DEG C)		22.5	PHOS.DIS ORTHO -PO4	MG/L	0.34
ALK TOT LAB. CACO3	MG/L	140	POTASSIUM DISS	MG/L	13
ANALYZING AGENCY		80020	POTASSIUM 40,D.PCI/L		9.7
BORON DISSOLVED	UG/L	280	RESIDUE DIS CALC SUM	MG/L	850
CALCIUM DISS	MG/L	170	RESIDUE DIS TON/AFT		1.16
CHLORIDE DISS	MG/L	6.5	RESIDUE DIS TON/DAY		0.02
FLUORIDE DISS	MG/L	0.4	SAR		1.1
HARDNESS NONCARB	MG/L	390	SILICA DISSOLVED	MG/L	11
HARDNESS TOTAL	MG/L	530	SODIUM DISS	MG/L	58
IRON DISSOLVED	UG/L	40	SODIUM PERCENT		19
MAGNESIUM DISS	MG/L	25	SP. CONDUCTANCE FLD		1100
NITR DIS NO2+NO3 -N	MG/L	0.28	SP. CONDUCTANCE LAB		13300
PH FIELD		6.6	STREAMFLOW(CFS)-INST		0.01
PH LAB		7.5	SULFATE DISS	MG/L	480
PHOS DIS ORTHO AS P	MG/L	0.11	WATER TEMP (DEG C)		25.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	170	8.483	CHLORIDE DISS	6.5	0.183
MAGNESIUM DISS	25	2.057	FLUORIDE DISS	0.4	0.021
POTASSIUM DISS	13	0.332	SULFATE DISS	480	9.994
SODIUM DISS	58	2.523	ALK TOT LAB.	140	2.797
			NITR DIS NO2+N	0.28	0.020
TOTAL		13.395	TOTAL		13.015

PERCENT DIFFERENCE = 1.44

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

7-26-79

WATER QUALITY ANALYSIS
LAB ID # 100603 RECORD # 37533

SAMPLE LOCATION: HELL'S HOLE CAN AT MOUTH NR WATSON UT
STATION ID: 09306405 LAT.LONG.SEQ.: 395826 1090838 01
DATE OF COLLECTION: BEGIN--790330 END-- TIME--1630
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464911300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS:
BY KIMBALL AND TOOLEY. PH BY W332881. METALS FILTERED WITH 0.1 MICRON
RERUN: ROE=520

ALK,TOT(CACO3)	MG/L	410	POTASSIUM DISS	MG/L	6.7
ALUMINUM DISSOLVED	UG/L	0	RESIDUE DIS CALC SUM	MG/L	743
ANALYZING AGENCY		80020	RESIDUE DIS TON/AFT		0.76
BORON DISSOLVED	UG/L	360	RESIDUE DIS TON/DAY		3.54
CALCIUM DISS	MG/L	100	RESIDUE DIS 180C	MG/L	560
CHLORIDE DISS	MG/L	7.8	SAR		3.0
FLUORIDE DISS	MG/L	0.8	SILICA DISSOLVED	MG/L	6.9
HARDNESS NONCARB	MG/L	0	SODIUM DISS	MG/L	130
HARDNESS TOTAL	MG/L	350	SODIUM PERCENT		45
IRON DISSOLVED	UG/L	10	SP. CONDUCTANCE FLD		710
MAGNESIUM DISS	MG/L	23	SP. CONDUCTANCE LAB		1280
MANGANESE DISSOLVED	UG/L	10	STREAMFLOW(CFS)-INST		2.3
MOLYBDENUM DISSOLVED	UG/L	30	STRONTIUM DISSOLVED	UG/L	900
PH FIELD		8.3	SULFATE DISS	MG/L	220
PH LAB		7.4	WATER TEMP (DEG C)		10.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	100	4.990	CHLORIDE DISS	7.8	0.221
MAGNESIUM DISS	23	1.892	FLUORIDE DISS	0.8	0.043
POTASSIUM DISS	6.7	0.172	SULFATE DISS	220	4.581
SODIUM DISS	130	5.655	ALK,TOT(CACO3)	410	8.192
TOTAL		12.708	TOTAL		13.034

PERCENT DIFFERENCE = -1.27

STATION 09306410

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE IS 02-13-81

STATION NUMBER 09306410 EVACUATION CREEK ABV MISSOURI CR NR DRAGON UT STREAM SOURCE AGENCY USGS
LATITUDE 394752 LONGITUDE 1090430 DRAINAGE AREA 100.00 DATUM 5680.00 STATE 49 COUNTY 047

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
PROVISIONAL DATA MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.33	.26	.30	.37	.49	.74	5.4	8.5	1.9	.85	.69
2	.32	.35	.26	.30	.37	.45	.72	4.6	8.0	24	.77	.64
3	.32	.37	.26	.30	.38	.49	1.0	4.6	7.2	7.5	.71	.55
4	.32	.35	.28	.30	.40	.47	1.0	4.6	6.9	4.8	.69	.55
5	.32	.35	.28	.30	.40	.44	1.2	6.6	6.3	3.8	.69	.53
6	.32	.35	.26	.30	.40	.50	1.2	5.7	5.5	3.4	.63	.53
7	.32	.35	.26	.28	.45	.50	1.2	7.4	4.4	2.9	.67	.63
8	.32	.35	.26	.30	.40	.55	1.4	8.1	3.8	2.8	.67	.69
9	.32	.35	.24	.30	.39	.52	1.4	7.4	3.8	2.5	.66	.63
10	.34	.35	.24	.31	.39	.50	1.6	9.3	3.6	2.2	.63	1.5
11	.34	.35	.26	.30	.39	.50	1.6	39	3.2	2.0	.63	.99
12	.34	.35	.28	.30	.40	.50	1.9	42	2.8	1.9	.67	.83
13	.34	.35	.30	.30	.43	.50	2.0	39	2.9	1.9	.72	.82
14	.34	.33	.30	.30	.47	.50	2.0	37	2.8	1.8	.76	.80
15	.34	.31	.30	.30	2.4	.52	2.1	33	2.6	1.2	1.8	.79
16	.34	.35	.30	.32	2.0	.50	2.2	36	2.5	.95	1.2	.76
17	.34	.37	.31	.35	3.2	.49	2.3	45	2.4	.90	.90	.75
18	.35	.35	.30	.40	14	.47	2.6	26	2.3	.80	.75	.75
19	.34	.35	.29	.42	18	.50	2.9	40	2.1	.70	.70	.71
20	.66	.34	.29	.42	3.7	.50	3.2	30	2.4	.65	.80	.75
21	.66	.40	.29	.42	1.2	.52	3.5	23	2.0	.65	.70	.75
22	.55	.33	.29	.40	.69	.58	3.8	21	2.2	.60	.65	.78
23	.52	.32	.29	.36	.50	.60	4.1	19	2.0	.55	.75	.72
24	.50	.34	.29	.32	.47	.60	4.3	17	2.2	.70	4.2	.71
25	.47	.32	.29	.28	.46	.58	4.0	15	1.7	2.4	2.0	.72
26	.44	.30	.29	.36	.45	.66	3.8	14	1.8	1.3	1.3	.72
27	.40	.27	.28	.40	.45	.72	3.7	13	1.6	.79	.86	.70
28	.40	.30	.29	.40	.47	.74	3.5	12	1.6	.80	.73	.71
29	.40	.29	.30	.40	.52	.72	3.7	11	1.6	.59	.69	.71
30	.40	.27	.30	.40	---	.72	4.1	10	1.5	.75	.69	.69
31	.33	---	.30	.38	---	.80	---	9.0	---	1.4	.71	---
TOTAL	12.02	10.09	8.74	10.52	54.15	17.13	72.76	594.7	102.2	78.93	29.18	22.10
MEAN	.39	.34	.28	.34	1.87	.55	2.43	19.2	3.41	2.55	.94	.74
MAX	.66	.40	.31	.42	18	.80	4.3	45	8.5	24	4.2	1.5
MIN	.32	.27	.24	.28	.37	.44	.72	4.6	1.5	.55	.63	.53
AC-FT	24	20	17	21	107	34	144	1180	203	157	58	44

CAL YR 1979 TOTAL 411.17 MEAN 1.13 MAX 11 MIN .09 AC-FT 816
WTR YR 1980 TOTAL 1012.52 MEAN 2.77 MAX 45 MIN .24 AC-FT 2010

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 165003 RECORD-# 99945

7-3-80

SAMPLE LOCATION: EVACUATION CREEK ABV MISSOURI CR NR DRAGON UT
STATION ID: 09306410 LAT.LONG.SEN.: 394752 1??0430 01
DATE OF COLLECTION: BEGIN--800602 END-- TIME--1430
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATIO : 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
COLLECTED BY D.M.BATTY,8-2-80. COND METER BECKMAN MDL RB338, PH METER
CORNING MDL 510A SER#1378, DO METER YSI MDL 57 #-316009
#1025, #1031 $45.50

AIR TEMP (DEG C)		20.5	PHOS DIS ORTHO AS P	MG/L	0.01
ALK,TOT(CACO3)	MG/L	310	PHOS.DIS ORTHO -PO4	MG/L	0.03
ANALYZING AGENCY		80020	POTASSIUM DISS	MG/L	2.8
BORON DISSOLVED	UG/L	80	POTASSIUM 40,D.PCI/L		2.1
CALCIUM DISS	MG/L	74	RESIDUE DIS CALC SUM	MG/L	1170
CHLORIDE DISS	MG/L	7.9	RESIDUE DIS TON/AFT		1.59
FLUORIDE DISS	MG/L	0.3	RESIDUE DIS TON/DAY		30.5
HARDNESS NONCARB	MG/L	150	SAR		4.1
HARDNESS TOTAL	MG/L	490	SILICA DISSOLVED	MG/L	13
IRON DISSOLVED	UG/L	10	SODIUM DISS	MG/L	210
MAGNESIUM DISS	MG/L	73	SODIUM PERCENT		48
NITR DIS NO2+NO3 -N	MG/L	0.20	SP. CONDUCTANCE FLD		1620
OXYGEN DISSOLVED	MG/L	7.6	SP. CONDUCTANCE LAB		1686
PH FIELD		8.2	STREAMFLOW(CFS)-INST		9.7
PH LAB		8.3	SULFATE DISS	MG/L	600
			WATER TEMP (DEG C)		18.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	74	3.693	CHLORIDE DISS	7.9	0.223
MAGNESIUM DISS	73	6.005	FLUORIDE DISS	0.3	0.015
POTASSIUM DISS	2.8	0.072	SULFATE DISS	600	12.492
SODIUM DISS	210	9.135	ALK,TOT(CACO3)	310	6.194
			NITR DIS NO2+N	0.20	0.014
TOTAL		18.904	TOTAL		18.939

PERCENT DIFFERENCE = -0.09

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

WATER QUALITY ANALYSIS
2-11-80 LAB ID # 269014 RECORD # 28826

SAMPLE LOCATION: EVACUATION CREEK ABV MISSOURI CR NR DRAGON UT
STATION ID: 09306410 LAT.LONG.SEQ.: 394752 1050430 01
DATE OF COLLECTION: BEGIN--790920 END-- TIME--1820
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464900300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
BY KIMBALL AND TOOLEY #1025 $40.50

ALK,TOT(CACO3)	MG/L	430	POTASSIUM DISS	MG/L	3.9
ANALYZING AGENCY		80020	POTASSIUM 40,D.PCI/L		2.9
BORON DISSOLVED	UG/L	170	RESIDUE DIS CALC SUM	MG/L	3090
CALCIUM DISS	MG/L	100	RESIDUE DIS TON/AFT		4.20
CHLORIDE DISS	MG/L	25	SAR		9.8
FLUORIDE DISS	MG/L	0.6	SILICA DISSOLVED	MG/L	12
HARDNESS NONCARB	MG/L	400	SODIUM + POTASSIUM	MG/L	650
HARDNESS TOTAL	MG/L	830	SODIUM DISS	MG/L	650
IRON DISSOLVED	UG/L	30	SODIUM PERCENT		85
MAGNESIUM DISS	MG/L	140	SP. CONDUCTANCE FLD		3350
PH FIELD		8.3	SP. CONDUCTANCE LAB		3840
PH LAB		8.2	SULFATE DISS	MG/L	1900
			WATER TEMP (DEG C)		16.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEG/L)
CALCIUM DISS	100	4.990	CHLORIDE DISS	25	0.705
MAGNESIUM DISS	140	11.516	FLUORIDE DISS	0.6	0.032
POTASSIUM DISS	3.9	0.100	SULFATE DISS	1900	39.558
SODIUM DISS	650	28.275	ALK,TOT(CACO3)	430	8.591
TOTAL		44.881	TOTAL		48.886

PERCENT DIFFERENCE = -4.27

STATION 09306430

TABLE

STATION 09306430
EVACUATION CREEK NEAR WATSON, UTAH
Mean Daily Discharge (cfs)
October 1979 - September 1980

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	.08	.03	.04	.11	.45	.60	.90	2.6	8	0.6	.20	.50
2	.08	.03	.04	.07	.18	.60	1.2	5.1	7	2.3	.10	.40
3	.08	.04	.04	.03	.04	.50	.90	5.1	4.4	7.9	.10	.40
4	.07	.04	.04	.03	.07	.20	1.10	3.7	3.0	7.2	.10	.40
5	.07	.07	.04	.03	.01	.40	1.70	4.6	3.7	6.5	.10	.50
6	.06	.07	.04	.02	.04	.40	2.80	5.1	2.3	5.1	.10	.50
7	.06	.07	.03	.02	.02	.40	2.5	6.5	1.6	3.7	.10	.50
8	.05	.07	.03	.02	.02	.50	1.4	5.1	1.4	3.7	.10	1.2
9	.05	.07	.03	.02	.02	.50	1.6	5.1	1.4	2.9	.10	.70
10	.04	.07	.03	.01	.02	.50	1.7	8.6	1.4	2.7	.10	.60
11	.04	.07	.02	.03	.02	.50	1.7	10.0	1.1	2.4	.10	1.9
12	.07	.04	.02	.01	.02	.50	1.4	8.6	2.3	2.2	.10	2.1
13	.07	.04	.02	.01	.01	.50	1.2	16	1.7	2.0	.10	.90
14	.07	.04	.03	9.5	0	.60	1.2	20	1.9	1.7	.10	.30
15	.04	.04	.02	27.0	0	.60	1.4	25	1.7	1.4	.10	.30
16	.04	.04	.03	9.5	17.9	.60	1.6	22	1.4	1.1	.20	.20
17	.04	.04	.03	5.3	57	.50	1.7	20	1.4	.70	.10	.20
18	.04	.04	.04	2.5	196	.50	1.9	17	1.4	.60	.10	.20
19	0.25	.04	.07	.07	258	.50	1.9	14	1.4	.60	.10	.20
20	2.15	.04	.04	.01	174.	.50	1.7	13	1.2	.50	.20	.20
21	.04	.04	.04	.01	28.8	.60	1.9	19	1.1	.40	.20	.20
22	0	.04	.07	.01	7.2	.60	2.3	18	1.1	.40	.10	.20
23	0	.07	.07	.02	1.2	.60	2.5	17	1.1	.40	.10	.20
24	0	.07	.04	.04	.80	.30	2.5	16	0.9	1.0	1.2	.20
25	.04	.04	.04	.02	.80	.50	2.5	15	0.9	1.2	5.1	.20
26	.01	.04	.04	.01	.70	.60	2.1	14	0.9	1.6	32.7	.20
27	.01	.07	.07	.01	.70	.90	2.1	13	0.7	1.0	31.4	.20
28	.02	.04	.07	0	.60	1.4	1.7	12	0.7	.10	2.5	.20
29	.02	.04	.18	0	1.0	1.4	1.9	11	0.7	.10	.90	.20
30	.02	.04	.11	0		1.4	2.3	10	0.7	.10	.60	.20
31	.02		.11	.04		1.0		9		.10	.40	
Total	3.56	1.48	1.52	54.5	746	19.2	53.3	371	58.5	62.2	77.5	14.2
Mean	.115	.049	.049	1.76	25.7	.619	1.78	12.0	1.95	2.01	2.5	.473
Max	2.15	.07	.07	27.0	258	1.4	2.8	25.0	8.0	7.9	32.7	2.1
Min	0	.03	.03	0	0	.20	.90	2.60	.70	.10	.10	.20
Ac-Ft	7.06	2.93	3.01	108	1479	38.1	106	736	116	123	154	28.1

Water Year 1980 Total 1413 Mean 4.08 Max 258 Min .0 Ac-Ft 2901

VTN ENVIRONMENTAL DIVISION
GEOSCIENCE DEPARTMENT
DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 10306430

Discharge measurements of ELEVATION CREEK NEAR WATSON, UTAH, during the year ending Sept. 30, 19 80

No.	Date	Made by	Width	Area	Mean velocity	Gauge height	Discharge	Rating #4 Shift adj.	Rating #4 Percent diff.	Method	Number meas. sections	Gauge height change	Time	Meas. rated	Temp. Air	Temp. H_2O	REMARKS
			Feet	Sq. ft.	Fps	Feet	Cfs	Feet				Feet	Hr.				
171	JUNE 03	B. HALE	11.5	3.4	2.33	2.88	7.9	-.02		.6	28	-.01	.58	G	19.5	11.5	MEAS'D 200' BELOW GS D.O. 3.5 CONTROL OPEN
172	JUNE 12	"	5.3	1.6	1.21	2.75	1.9	-.01		.6	17	0	.50	F	21.5	13.5	D.O. 1.5 pH = 8.3 CLEANED WELL PROBE CONTROL OPEN
173	JUNE 18	"	5.8	1.33	1.09	2.73	1.46	-.02		.6	22	0	.33	F	21.5	17.0	FLOW CLEAR · SMOOTH CONTROL OPEN
174	JULY 02	"	5.4	.82	.75	2.70	.61	-.06		.6	17	0	.42	F	17.2	14.2	FLOW CLEAR - CONTROL OPEN D.O. = 8.0 pH. 8.3
175	JULY 17	"	5.6	1.1	.730	2.78	.74	-.13		.6	28	0	.25	F	--	17.8	MEAS'D 75' BLW GAGE CONTROL OPEN
176	AUG 05	"	(USED	3" FLUME)		2.68	.179	-.10						G	21.5	16.6	CONTROL OPEN
177	AUG 15	"	"	"		2.66	.104	-.13							16.5	16.5	D.O. = 9.6 COND = 3900 150' BLW GAGE
178	AUG 27	"	12.3	4.0	1.75	2.89	7.4	-.03		.6	24	0	.50	F	25.0	14.0	CONTROL OPEN FLOW FAIRLY SMOOTH
179	SEPT 12	"	6.8	.90	6.44	2.65	.58	-.01		.6	22	0	.50	F	13.0	12.9	CONTROL OPEN FLOW MUDDY COLOR
180	SEP 29	"	4.7	.57	.385	2.60	.22	-.02		.6	15	0	.50	F	10.8	8.4	SMOOTH CLEAR FLOW CORRECTED CONTROL OPEN W.Q.
181	OCT 15	"	29.0	15.0	4.06	3.29	61.0	-.03		.6	29	0	.50	G	9.5	6.5	WADING 100' BLW GAGE

Copied by _____ Computed by _____ Checked by _____

VTN ENVIRONMENTAL DIVISION
GEOSCIENCE DEPARTMENT
DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 13066430

Discharge measurements of EVACUATION CREEK NEAR WATSON, UTAH, during the year ending Sept. 30, 19 80

No.	Date	Made by	Width	Area	Mean velocity	Gauge height	Discharge	Rating # 3 Shift adj.	Rating # 3 Percent diff.	Method	Number meas. sections	Gauge height change	Time	Meas. rated	Temp. Air	Temp. H_2O	REMARKS
			Feet	Sq. ft.	Fps	Feet	Cfs	Feet				Feet	Hr.				
151	OCT 02	B. HALE	1.5	.123	.609	2.19	.075	+.05		.5	4	0	.17	G	15.5	19.0	CONTROL OPEN HW/M E 7.40
152	OCT 19	"	1.6	.125	.664	2.18	.083	+.06		.5	4	0	.17	G	16.4	11.0	CONTROL OPEN PH = 7.0 COND = 4100
153	NOV 06	"	2.20	.260	.450	2.11	.117	+.14		.5	6	0	.17	F	6.4	4.8	CONTROL OPEN PH = 8.0 COND = 4000
154	NOV 19	"	2.14	.214	.347	2.10	.085	+.14		.5	5	0	.17	F	3.3	5.2	SOME ICE IN CHANNEL CONTROL OPEN
155	DEC 04	"	1.70	.264	.265	2.11	.070	+.13		.5	5	0	.17	F	0	1.0	CHANNEL 100% ICE CONTROL ICE COVERED
156	DEC 12	"	1.70	.315	1.96	2.13	.662	+.11		.5	4	0	.17	F	-.2	-.05	100% ICE COVERED CONTROL FROZEN OVER
157	JAN 02	"	1.70	.163	.282	2.08	.046	+.15		.5	5	0	.17	F	-.3	.04	100% ICE COVER AT CONTROL POINT D.O. = 6.0
158	JAN 25	"	1.70	.163	.527	2.16	.086	+.08		.5	5	0	.17	F	.02	.2	I.S. - HW/M = 3.26 CONTROL 50% ICE CHANNEL 75% ICE
159	JAN 30	"	2.10	.264	.462	2.29	.122	-.04		.5	6	+.01	.17	F	-.10	0	D.O. = 6.8 PH = 9.7 COND. 4900 TOOK WQ SAMPLE
160	FEB 04	"	2.0	.209	.317	2.15	.066	+.09		.5	4	0	.17	F	-1.6	2.2	CLEARED CONTROL OF ICE AND CHANNEL FOR OPEN
161	FEB 13	"	VISIT			2.96	45.8 e	+0							4	2	PH = 9.2 COND = 650 D.O. = 10.2
162	FEB 19	"	32.0	18.0	3.44	3.23	65.0	+.05	# 4	.6	29	-.01	.75	G	3.2	0	NO ICE PH = 9.2 D.O. = 6.8 COND. 650 CONTROL OPEN
163	FEB 22	"	10.5	3.06	2.00	2.89	5.74	-.05		.6	20	-.01	.50	G	3.5	3.8	CHANNEL OPEN PH = 8.2 NO ICE D.O. = 14.5
164	MAR 04	"	4.10	.63	.714	2.72	.45	-.10		.6	13	0	.42	F	5.3	7.5	FREE OF ICE - FLOW CLEAR PH = 8.8 COND = 4000
165	MAR 17	"	3.20	.70	.838	2.72	.59	-.08		.6	10	0	.17	P	1.0	10.0	FLOW CLEAR! NO ICE CONTROL OPEN
166	APR 02	"	4.40	1.11	1.56	2.78	1.74	-.05		.6	14	0	.33	F	2.0	6.6	
167	APR 14	"	4.2	1.18	1.00	2.78	1.43	-.07		.6	13	0	.50	P	20.0	15.0	SMOOTH FLOW CONTROL 15' BELOW G.H.
168	MAY 05	"	9.1	2.68	1.59	2.90	4.6	-.03		.6	29	0	.67	F	19.6	13.5	MEAS'D 15' BELOW GAGE TOOK SEDIMENT 2
169	MAY 13	"	12.7	6.0	2.66	2.90	16.0	-.05		.6	22	+.01	.58	F	16.0	15.2	MEASURED D.O. = 7.9 CONTROL OPEN
170	MAY 20	"	11.4	4.4	2.25	2.94	9.4	-.05		.6	27	0	.58	G	20.5	16.7	MEASURED 20 FT BELOW GH TOOK SEDIMENT CONTROL OPEN

Copied by W. Romero Computed by _____ Checked by _____

(May 1971)

Daily Gage Height, in Feet, and Discharge, in Cubic Feet, per Second, of Buncombe Creek, 5-2

At Near ..... for the Year Ending September 30, 19 80

Drainage Area ..... Square Miles. Water-Stage Recorder ..... Ratio ..... : .....

Day	October		November		December		January		February		March	
	Gage height NO3	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height NO3	Discharge	Gage height NO4	Discharge
1		0.07	2.10	0.01		a 0.04	2.10	0.11	2.29	b .02	2.72	.7
2		.07	2.10	.03		a .04	2.07	.07	2.23	b .02	2.73	.7
3		.07	2.10	.03		a .04	2.08	.04	2.17	.04	2.73	.3
4		.07	2.10	.04	2.10	a .04	2.08	.04	2.15	.07	2.67	.2
5		.07	2.10	.04	2.10	.04	2.08	.04	2.17	.18	2.72	.4
6		.07	2.10	.07	2.10	.04	2.08	.03	2.15	.07	2.72	.4
7		.07	2.10	.07	2.10	.03	2.08	.03	2.14	.04	2.72	.4
8		.07	2.10	.07	2.10	.03	2.08	.03	2.15	.07	2.72	.4
9		.07	2.10	.07	2.10	.03	2.08	.02	2.20	b .02	2.72	.4
10		.07	2.10	.07	2.10	.02	2.08	.02	2.22	b .07	2.72	.4
11	2.12	.07	2.10	.07	2.10	.02	2.10	.04	2.22	b .07	2.72	.5
12	2.18	.07	2.09	.04	2.14	b .02	2.08	.02	2.18	b .07	2.72	.5
13	2.19	.07	2.09	.04	2.16	b .02	2.09	.02	2.15	.07	2.72	.5
14	2.19	.07	2.09	.04	2.11	.03	2.44	5.0	2.14	.04	2.72	.5
15	2.17	.07	2.09	.04	2.10	.02	2.69	28	2.14	.04	2.72	.5
16	2.17	.07	2.09	.04	2.10	.03	2.44	10	2.62	1.6	2.72	.5
17	2.17	.07	2.09	.04	2.10	.03	2.35	5.7	3.03	30	2.71	.4
18	2.17	.07	2.09	.04	2.11	.04	2.27	2.8	3.67	183	2.71	.4
19	2.21	.35	2.09	.04	2.12	.07	2.14	.11	3.71	270	2.71	.4
20	2.30	2.5	2.09	.04	2.11	.07	2.16	.18	3.66	174	2.71	.4
21	2.16	.04	2.09	.04	2.11	.07	2.16	.16	3.03	29	2.71	.5
22	2.10	0	2.09	.04	2.11	.07	2.16	.18	2.11	7.9	2.71	.5
23	2.09	0	2.10	.07	2.11	.07	2.17	.13	2.76	1.6	2.71	.5
24	2.09	0	2.10	.07	2.10	.07	2.16	.11	2.72	1.0	2.68	.2
25	2.14	.03	2.09	.04	2.10	.07	2.16	.11	2.72	.9	2.70	.5
26	2.10	0	2.09	.04	2.10	.07	2.17	.03	2.72	.9	2.70	.5
27	2.10	0	2.09	.04	2.10	.07	2.20	.01	2.72	.8	2.73	.8
28	2.11	.01		a .04	2.10	.07	2.16	0	2.72	.8	2.77	1.4
29	2.10	.01		a .04	2.12	.25	2.20	0	2.76	1.0	2.77	1.4
30	2.10	.01		a .04	2.10	.11	2.22	0			2.77	1.6
31	2.16	.01			2.10	.11	2.26	b .01			2.73	1.0
Total												
Mean												
Maximum												
Minimum												
Inches												
Acre-feet												

Max. Pmpg. ..... (G. H. ..... (ft.). Min. G. H. ..... ft. on .....

Min. Disch. ..... CFS on .....

CALENDAR YEAR

Q = 110 gage-height 11 adopted. 6-1-78 affected

River Creek

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

Station Number 21[illegible] Tunnahan Creek

S-2

Used rating table dated _____

Gage heights used to half tenths between _____ and _____ hundredths below and tenths above these limits.

Gage Read to _____ Once / Twice a Day by _____

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DAY
	GAGE HEIGHT	DISCHARGE 1964										1964	
1	2.72	.90	2.86	2.6		a 7	2.70	.60	2.68	.10	2.65	.50	1
2	2.75	1.74	2.91	5.1		a 7	2.22	.60	2.67	.10	2.64	.40	2
3	2.72	.90	2.91	5.1	2.24	7.0	2.94	8.6	2.67	.10	2.64	.40	3
4	2.74	1.1	2.89	3.7	2.22	3.0	2.94	8.6	2.67	.10	2.64	.50	4
5	2.79	1.7	2.90	4.3	2.23	3.7	2.94	7.9	2.67	.18	2.65	.60	5
6	2.85	2.8	2.91	6.5	2.28	2.3	2.94	7.9	2.67	.10	2.65	.60	6
7	2.83	2.3	2.92	11.1	2.24	1.6	2.94	7.2	2.66	.10	2.65	.60	7
8	2.77	1.2	2.90	8.6	2.22	1.2	2.94	7.2	2.66	.10	2.73	1.6	8
9	2.78	1.2	2.89	9.3	2.22	1.2		a 6	2.66	.10	2.66	.70	9
10	2.79	1.4	2.94	16.6	2.22	1.2		a 6	2.67	.10	2.65	.60	10
11	2.80	1.4	2.96	21.0	2.20	1.0		a 5	2.66	.10	2.75	1.9	11
12	2.78	1.1	2.93	18.8	2.21	1.7		a 4	2.66	.10	2.76	.58	12
13	2.77	.90		a 16.0	2.24	1.6		a 4	2.66	.10	2.68	.90	13
14	2.77	1.0		a 14	2.25	1.7		a 3	2.66	.10	2.62	.30	14
15	2.78	1.0		a 13	2.24	1.6		a 2	2.69	.10	2.62	.30	15
16	2.79	1.1		a 13	2.23	1.4		a 1	2.72	.30	2.60	.20	16
17	2.80	1.2		a 12	2.23	1.4	2.77	.73	2.67	.10	2.60	.20	17
18	2.81	1.4		a 11	2.23	1.4	2.76	.50	2.67	.10	2.60	.20	18
19	2.81	1.4		a 10	2.23	1.4	2.76	.50	2.67	.10	2.60	.20	19
20	2.80	1.2		a 9.0	2.23	1.4		a .5	2.67	.10	2.60	.20	20
21	2.81	1.4		a 9	2.22	1.1		a .5	2.66	.10	2.61	.30	21
22	2.83	1.9		a 9	2.22	1.1		a .4	2.64	.10	2.61	.30	22
23	2.84	2.1		a 9	2.22	1.0		a .4	2.64	.10	2.61	.30	23
24	2.84	2.1		a 9	2.21	.90		a .3	2.77	.90	2.61	.30	24
25	2.85	2.3		a 8	2.21	.90		a .2	2.89	2.6	2.60	.20	25
26	2.83	1.9		a 8	2.21	.80		a .2	3.13	35.	2.60	.20	26
27	2.83	1.9		a 8	2.20	.70		a .2	3.11	7.5	2.60	.20	27
28	2.81	1.4		a 8	2.20	.70	2.68	.10	2.80	2.6	2.60	.20	28
29	2.82	1.9		a 8	2.20	.60	2.68	.10	2.70	1.0	2.60	.22	29
30	2.84	2.3		a 7	2.20	.60	2.68	.10	2.67	.70	2.60	.20	30
31				a 7			2.68	.10	2.65	.50			31

Period / Year

First Quarter — Second — Third — Fourth

Computed — Checked

Disch. applied — Disch. checked

G.H. copied — G.H. checked

Memo To File

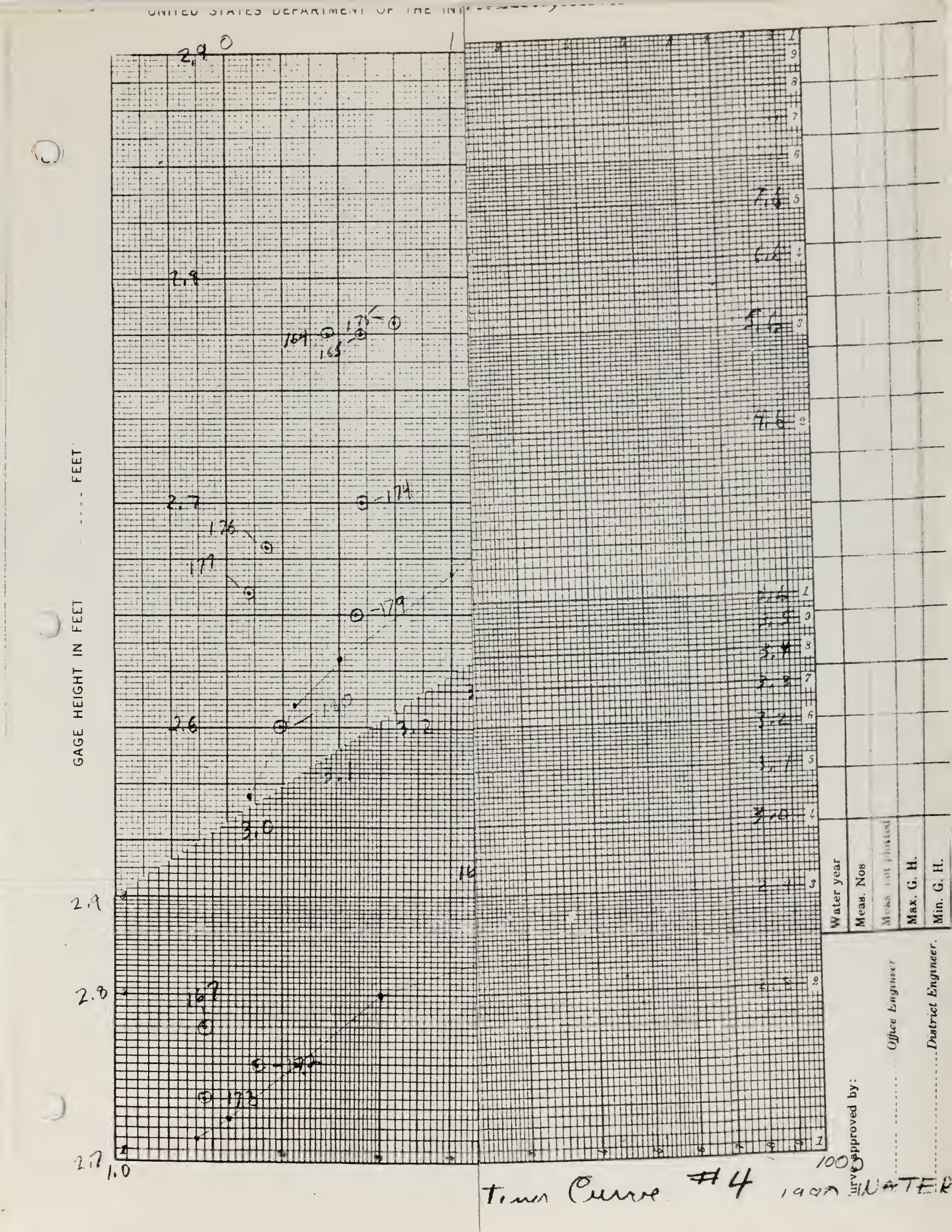
Maximum Instantaneous Flow

Evaporation Creek 09305430
for 1980 WY

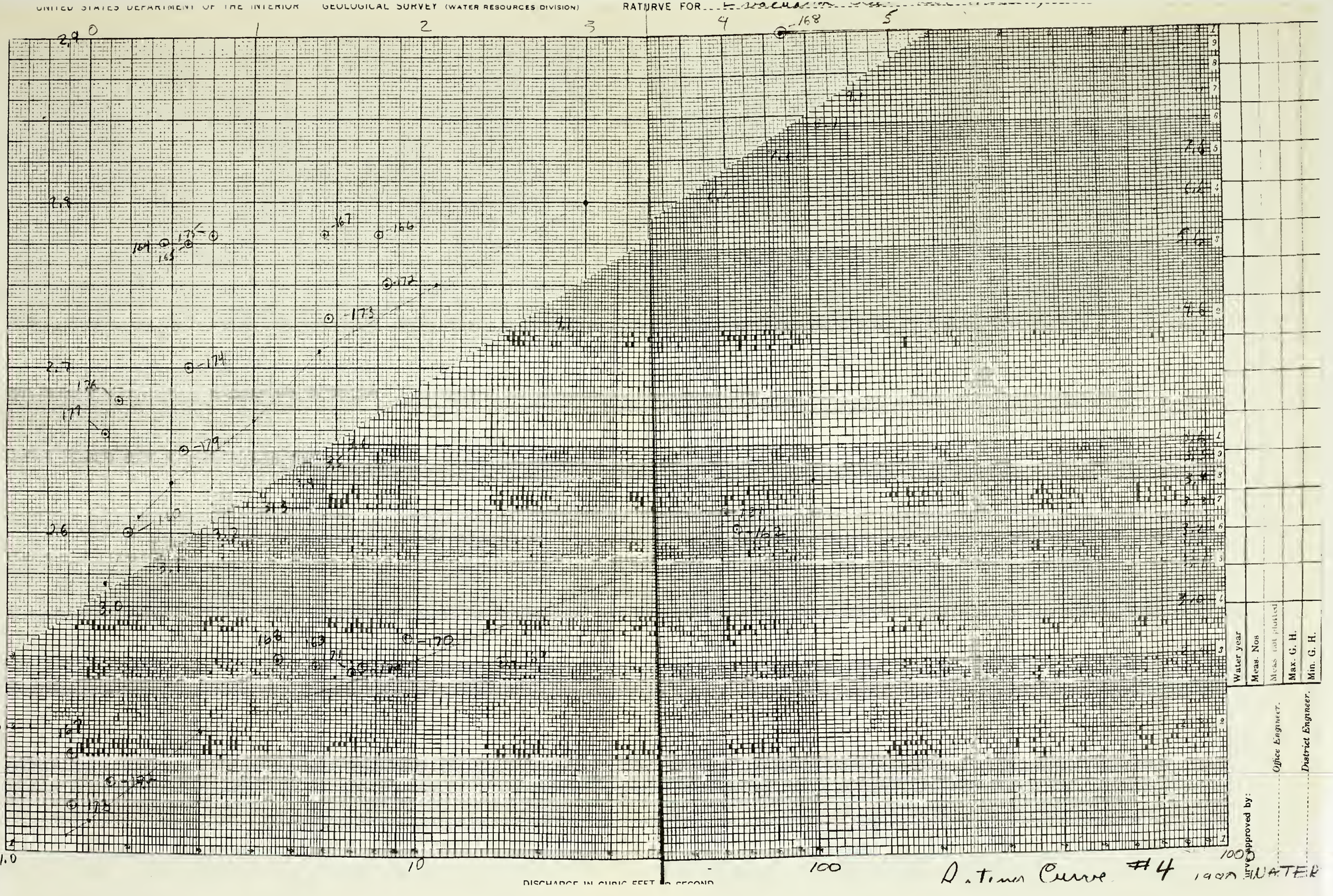
February 17 1981 4.79 + 3.25 shift

5.04 GH.
#4 rating Table

Discharge = 676.0 CFS


UNITED STATES DEPARTMENT OF THE INT
GAGE HEIGHT IN FEET
---- FEET
2.9
2.8
2.7
2.6
2.9
2.8
2.7
1.0
Water year
Meas. Nos
Meas not plotted
Max. G. H.
Min. G. H.
Approved by:
Office Engineer
District Engineer.
Time Curve #4
WATER

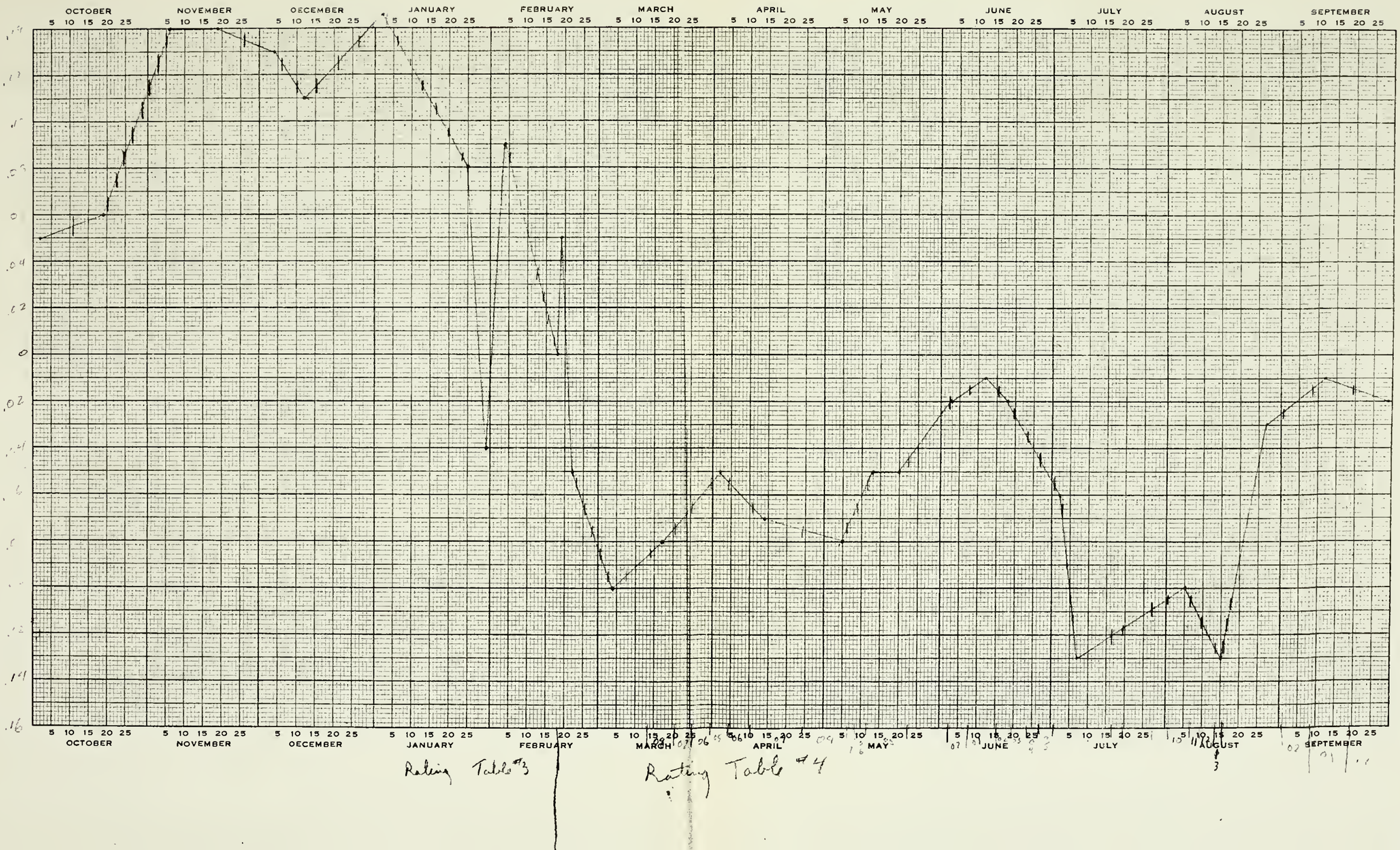
UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY (WATER RESOURCES DIVISION) RATING CURVE FOR [illegible]



Rating Curve #4 1907 WATER

Evacuation Creek 09306430

Distribution of shift



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GRAPH PAPER
PRINTED IN U.S.A.
NO. 41,269. ONE YEAR BY DAYS (OCTOBER TO SEPTEMBER) X 150 DIVISIONS.

Expanded Rating Table for Evacuation Creek near Watson, Utah
Station No. 09306430

Stage	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
2.[illegible]0	12.0	13.7	13.3	14.0	14.6	15.3	15.9	16.6	17.2	17.[illegible]
2.70	18.5	19.4	20.2	21.1	21.9	22.8	23.6	24.5	25.3	26.[illegible]
2.80	27	28.1	29.2	30.3	31.4	32.5	33.6	34.7	35.8	36.[illegible]
2.90	38	39.3	40.6	41.9	43.2	44.5	45.8	47.1	48.4	49.[illegible]
3.00	51	52.5	54.0	55.5	57.0	58.5	60.0	61.5	63.0	64.[illegible]
3.10	66	67.7	69.4	71.1	72.8	74.5	76.2	77.9	79.6	81.[illegible]
3.20	83	85	87	89	91	93	95	97	99	101
3.30	103	105	107	110	112	114	116	118	121	123
3.40	125	128	130	133	135	138	140	143	145	148
3.50	150	153	155	158	160	163	165	168	170	173
3.60	175	178	181	184	187	190	193	196	199	202
3.70	205	208	211	214	217	220	223	226	229	232
3.80	235	238	241	244	247	250	253	256	259	262
3.90	265	269	272	276	279	283	286	290	293	297
4.[illegible]0	300	304	307	311	314	318	321	325	328	332
4.10	335	339	342	346	349	353	356	360	363	367
4.20	370	374	377	381	384	388	391	395	398	402
4.30	405	409	412	416	419	423	426	430	433	437
4.40	440	444	447	451	454	458	461	465	468	472
4.50	475	479	482	486	489	493	496	500	503	507
4.60	510	514	517	521	524	528	531	535	538	542
4.70	545	549	552	556	559	563	566	570	573	577
4.80	580	584	587	591	594	598	601	605	608	612
4.90	615	619	622	626	629	633	636	640	643	647
5.00	650	654	658	662	666	670	674	678	682	686
5.10	690	694	698	702	706	710	714	718	722	726
5.20	730	734	738	742	746	750	754	758	762	766
5.30	770	774	778	782	786	790	794	798	802	806
5.40	810	814	818	822	826	830	834	838	842	846
5.50	850	854	858	862	866	870	874	878	882	886
5.[illegible]0	890	894	898	902	906	910	914	918	922	926
5.70	930	934	938	942	946	950	954	958	962	966
5.80	970	974	978	982	986	990	994	998	1002	1006
5.90	1010	1014	1018	1022	1026	1030	1034	1038	1042	1046

210-b
(3-67)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)

Sta. No. 09337500
Table No. 0-2
Begin 77 10 01 -- (YR MO D HR)

Rating table for Evacuation Creek near Watson, Utah

from Oct. 1, 1977 *to* ..... , *from* ..... *to* ..... , *from* ..... *to* .....

Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
Feet	Cfs	Feet	Cfs	Feet	Cfs	Feet	Cfs	Feet	Cfs	Feet	Cfs	Feet	Cfs	Feet	Cfs	Feet	Cfs	Feet	Cfs
2.00		2.20	0.01	2.40	3.55	.60	12.0	.80		.00		.20		.40		.60		.80	
.01		.21	0.02	.41	3.90	.61	12.5	.81		.01		.21		.41		.61		.81	
.02		.22	0.03	.42	4.25	.62	13.0	.82		.02		.22		.42		.62		.82	
.03		.23	0.04	.43	4.60	.63	[illegible]	.83		.03		.23		.43		.63		.83	
.04		.24	0.07	.44	4.95	.64	[illegible]	.84		.04		.24		.44		.64		.84	
.05		.25	0.11	.45	5.30	.65	[illegible]	.85		.05		.25		.45		.65		.85	
.06		.26	0.18	.46	5.65	.66	[illegible]	.86		.06		.26		.46		.66		.86	
.07		.27	0.25	.47	6.00	.67	[illegible]	.87		.07		.27		.47		.67		.87	
.08		.28	0.35	.48	6.35	.68	[illegible]	.88		.08		.28		.48		.68		.88	
.09		.29	0.45	.49	6.7	.69		.89		.09		.29		.49		.69		.89	
2.10		2.30	0.60	2.50	7.1	.70		.90		.10		.30		.50		.70		.90	
.11		.31	0.80	.51	7.5	.71		.91		.11		.31		.51		.71		.91	
.12		.32	1.00	.52	8.0	.72		.92		.12		.32		.52		.72		.92	
.13		.33	1.25	.53	8.5	.73		.93		.13		.33		.53		.73		.93	
.14		.34	1.50	.54	9.0	.74		.94		.14		.34		.54		.74		.94	
.15		.35	1.80	.55	9.5	.75		.95		.15		.35		.55		.75		.95	
.16		.36	2.15	.56	10.0	.76		.96		.16		.36		.56		.76		.96	
.17		.37	2.50	.57	10.5	.77		.97		.17		.37		.57		.77		.97	
.18	0	.38	2.85	.58	11.0	.78		.98		.18		.38		.58		.78		.98	
.19	0.01	.39	3.20	.59	11.5	.79		.99		.19		.39		.59		.79		.99	

This table is applicable for open-channel conditions. It is based on all discharge measurements made during 1978, considers most measurements made above 10 ft³/s, and is fairly well defined between 0 cfs and 1,300 cfs.

Comp by KLL date 02-02-

Ckd by SDW date 02-02-

GPO : 1967 O—249-764

9-470
(Rev. 2-67)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY / WATER RESOURCES DIVISION)

Sta. No. 09306430
Table No. 02
Begin 771001 (YR. MO. D. HR.)

Rating table for Evacuation Creek near Watson, Utah

from Oct. 1, 1977 *to* ____, *from* ____ *to* ____, *from* ____ *to* ____

Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs
2.00			4.00	300	35	6.00	1,050	40	.00			.00			.00			.00		
.10			.10	335		.10	1,090	40	.10			.10			.10			.10		
.20	0.01	var.	.20	370		.20	1,130		.20			.20			.20			.20		
.30	0.60	var.	.30	405		.30	1,170	40	.30			.30			.30			.30		
.40	3.55	var.	.40	440		.40	1,220	50	.40			.40			.40			.40		
.50	7.10	var.	.50	475		.50	1,270	50	.50			.50			.50			.50		
.60	12.0	6.5	.60	510		.60	1,320		.60			.60			.60			.60		
.70	18.5	8.5	.70	545		.70			.70			.70			.70			.70		
.80	27	11	.80	580		.80			.80			.80			.80			.80		
.90	38	13	.90	615	35	.90			.90			.90			.90			.90		
3.00	51	15	5.00	650	40	7.00			.00			.00			.00			.00		
.10	66	17	.10	690		.10			.10			.10			.10			.10		
.20	83	20	.20	730		.20			.20			.20			.20			.20		
.30	103	22	.30	770		.30			.30			.30			.30			.30		
.40	125	25	.40	810		.40			.40			.40			.40			.40		
.50	150	25	.50	850		.50			.50			.50			.50			.50		
.60	175	30	.60	890		.60			.60			.60			.60			.60		
.70	205	30	.70	930		.70			.70			.70			.70			.70		
.80	235	30	.80	970		.80			.80			.80			.80			.80		
.90	265	35	.90	1,010	40	.90			.90			.90			.90			.90		

This table is applicable for open-channel conditions. It is based on all discharge measurements made during 1978, considers most measurements made above 10 ft³/s, and is fairly well defined between 0 cfs and 1,300 cfs.

Comp. by KLL date 02-02-
Ckd. by SDW date 02-02-

U.S. GOVERNMENT PRINTING OFFICE : 1974 O - 563-838

EVACUATION CR. NEAR MOUTH NEAR WATSON-UT
TABLE 4 11/26/80
DISCHARGE CFS

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2
2.6	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1
2.7	1.2	1.4	1.6	1.7	1.9	2.1	2.3	2.5	2.6	2.8
2.8	3.0	3.7	4.4	5.1	5.8	6.5	7.2	7.9	8.6	9.3
2.9	10.0	11.1	12.2	13.3	14.4	15.5	16.6	17.7	18.8	19.9

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
3.0	21.0	22.3	23.6	24.9	26.2	27.5	28.8	30.1	31.4	32.7
3.1	34.0	35.5	37.0	38.5	40.0	41.5	43.0	44.5	46.0	47.5
3.2	49.0	50.9	52.8	54.7	56.6	58.5	60.4	62.3	64.2	66.1
3.3	68.0	70.6	73.2	75.8	78.4	81.0	83.6	86.2	88.8	91.4
3.4	94.0	96.6	99.2	101.8	104.4	107.0	109.6	112.2	114.8	117.4
3.5	120.0	123.0	126.0	129.0	132.0	135.0	138.0	141.0	144.0	147.0
3.6	150.0	153.0	156.0	159.0	162.0	165.0	168.0	171.0	174.0	177.0
3.7	180.0	183.0	186.0	189.0	192.0	195.0	198.0	201.0	204.0	207.0
3.8	210.0	213.0	216.0	219.0	222.0	225.0	228.0	231.0	234.0	237.0
3.9	240.0	243.0	246.0	249.0	252.0	255.0	258.0	261.0	264.0	267.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
4.0	270.0	273.0	276.0	279.0	282.0	285.0	288.0	291.0	294.0	297.0
4.1	300.0	304.0	308.0	312.0	316.0	320.0	324.0	328.0	332.0	336.0
4.2	340.0	344.0	348.0	352.0	356.0	360.0	364.0	368.0	372.0	376.0
4.3	380.0	384.0	388.0	392.0	396.0	400.0	404.0	408.0	412.0	416.0
4.4	420.0	424.0	428.0	432.0	436.0	440.0	444.0	448.0	452.0	456.0
4.5	460.0	464.0	468.0	472.0	476.0	480.0	484.0	488.0	492.0	496.0
4.6	500.0	504.0	508.0	512.0	516.0	520.0	524.0	528.0	532.0	536.0
4.7	540.0	544.0	548.0	552.0	556.0	560.0	564.0	568.0	572.0	576.0
4.8	580.0	584.0	588.0	592.0	596.0	600.0	604.0	608.0	612.0	616.0
4.9	620.0	624.0	628.0	632.0	636.0	640.0	644.0	648.0	652.0	656.0

4.2	340.0	344.0	348.0	352.0	356.0	360.0	364.0	368.0	372.0	376.0
4.3	380.0	384.0	388.0	392.0	396.0	400.0	404.0	408.0	412.0	416.0
4.4	420.0	424.0	428.0	432.0	436.0	440.0	444.0	448.0	452.0	456.0
4.5	460.0	464.0	468.0	472.0	476.0	480.0	484.0	488.0	492.0	496.0
4.6	500.0	504.0	508.0	512.0	516.0	520.0	524.0	528.0	532.0	536.0
4.7	540.0	544.0	548.0	552.0	556.0	560.0	564.0	568.0	572.0	576.0
4.8	580.0	584.0	588.0	592.0	596.0	600.0	604.0	608.0	612.0	616.0
4.9	620.0	624.0	628.0	632.0	636.0	640.0	644.0	648.0	652.0	656.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
5.0	660.0	664.0	668.0	672.0	676.0	680.0	684.0	688.0	692.0	696.0
5.1	700.0	704.0	708.0	712.0	716.0	720.0	724.0	728.0	732.0	736.0
5.2	740.0	744.0	748.0	752.0	756.0	760.0	764.0	768.0	772.0	776.0
5.3	780.0	784.0	788.0	792.0	796.0	800.0	804.0	808.0	812.0	816.0
5.4	820.0	824.0	828.0	832.0	836.0	840.0	844.0	848.0	852.0	856.0
5.5	860.0	864.0	868.0	872.0	876.0	880.0	884.0	888.0	892.0	896.0
5.6	900.0	905.0	910.0	915.0	920.0	925.0	930.0	935.0	940.0	945.0
5.7	950.0	955.0	960.0	965.0	970.0	975.0	980.0	985.0	990.0	995.0
5.8	1000.0	1005.0	1010.0	1015.0	1020.0	1025.0	1030.0	1035.0	1040.0	1045.0
5.9	1050.0	1055.0	1060.0	1065.0	1070.0	1075.0	1080.0	1085.0	1090.0	1095.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
6.0	1100.0	1105.0	1110.0	1115.0	1120.0	1125.0	1130.0	1135.0	1140.0	1145.0
6.1	1150.0	1155.0	1160.0	1165.0	1170.0	1175.0	1180.0	1185.0	1190.0	1195.0
6.2	1200.0	1205.0	1210.0	1215.0	1220.0	1225.0	1230.0	1235.0	1240.0	1245.0
6.3	1250.0	1255.0	1260.0	1265.0	1270.0	1275.0	1280.0	1285.0	1290.0	1295.0
6.4	1300.0	1305.0	1310.0	1315.0	1320.0	1325.0	1330.0	1335.0	1340.0	1345.0
6.5	1350.0	1355.0	1360.0	1365.0	1370.0	1375.0	1380.0	1385.0	1390.0	1395.0
6.6	1400.0	1405.0	1410.0	1415.0	1420.0	1425.0	1430.0	1435.0	1440.0	1445.0
6.7	1450.0	1455.0	1460.0	1465.0	1470.0	1475.0	1480.0	1485.0	1490.0	1495.0
6.8	1500.0	1505.0	1510.0	1515.0	1520.0	1525.0	1530.0	1535.0	1540.0	1545.0
6.9	1550.0	1555.0	1560.0	1565.0	1570.0	1575.0	1580.0	1585.0	1590.0	1595.0

5.0	660.0	664.0	668.0	672.0	676.0	680.0	684.0	688.0	692.0	696.0
5.1	700.0	704.0	708.0	712.0	716.0	720.0	724.0	728.0	732.0	736.0
5.2	740.0	744.0	748.0	752.0	756.0	760.0	764.0	768.0	772.0	776.0
5.3	780.0	784.0	788.0	792.0	796.0	800.0	804.0	808.0	812.0	816.0
5.4	820.0	824.0	828.0	832.0	836.0	840.0	844.0	848.0	852.0	856.0
5.5	860.0	864.0	868.0	872.0	876.0	880.0	884.0	888.0	892.0	896.0
5.6	900.0	905.0	910.0	915.0	920.0	925.0	930.0	935.0	940.0	945.0
5.7	950.0	955.0	960.0	965.0	970.0	975.0	980.0	985.0	990.0	995.0
5.8	1000.0	1005.0	1010.0	1015.0	1020.0	1025.0	1030.0	1035.0	1040.0	1045.0
5.9	1050.0	1055.0	1060.0	1065.0	1070.0	1075.0	1080.0	1085.0	1090.0	1095.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
6.0	1100.0	1105.0	1110.0	1115.0	1120.0	1125.0	1130.0	1135.0	1140.0	1145.0
6.1	1150.0	1155.0	1160.0	1165.0	1170.0	1175.0	1180.0	1185.0	1190.0	1195.0
6.2	1200.0	1205.0	1210.0	1215.0	1220.0	1225.0	1230.0	1235.0	1240.0	1245.0
6.3	1250.0	1255.0	1260.0	1265.0	1270.0	1275.0	1280.0	1285.0	1290.0	1295.0
6.4	1300.0	1305.0	1310.0	1315.0	1320.0	1325.0	1330.0	1335.0	1340.0	1345.0
6.5	1350.0	1355.0	1360.0	1365.0	1370.0	1375.0	1380.0	1385.0	1390.0	1395.0
6.6	1400.0	1405.0	1410.0	1415.0	1420.0	1425.0	1430.0	1435.0	1440.0	1445.0
6.7	1450.0	1455.0	1460.0	1465.0	1470.0	1475.0	1480.0	1485.0	1490.0	1495.0
6.8	1500.0	1505.0	1510.0	1515.0	1520.0	1525.0	1530.0	1535.0	1540.0	1545.0
6.9	1550.0	1555.0	1560.0	1565.0	1570.0	1575.0	1580.0	1585.0	1590.0	1595.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
7.0	1600.0	1606.0	1612.0	1618.0	1624.0	1630.0	1636.0	1642.0	1648.0	1654.0
7.1	1660.0	1666.0	1672.0	1678.0	1684.0	1690.0	1696.0	1702.0	1708.0	1714.0
7.2	1720.0	1726.0	1732.0	1738.0	1744.0	1750.0	1756.0	1762.0	1768.0	1774.0
7.3	1780.0	1786.0	1792.0	1798.0	1804.0	1810.0	1816.0	1822.0	1828.0	1834.0
7.4	1840.0	1846.0	1852.0	1858.0	1864.0	1870.0	1876.0	1882.0	1888.0	1894.0
7.5	1900.0	1906.0	1912.0	1918.0	1924.0	1930.0	1936.0	1942.0	1948.0	1954.0
7.6	1960.0	1966.0	1972.0	1978.0	1984.0	1990.0	1996.0	2002.0	2008.0	2014.0
7.7	2020.0	2026.0	2032.0	2038.0	2044.0	2050.0	2056.0	2062.0	2068.0	2074.0
7.8	2080.0	2086.0	2092.0	2098.0	2104.0	2110.0	2116.0	2122.0	2128.0	2134.0
7.9	2140.0	2146.0	2152.0	2158.0	2164.0	2170.0	2176.0	2182.0	2188.0	2194.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
8.0	2200.0	2207.0	2214.0	2221.0	2228.0	2235.0	2242.0	2249.0	2256.0	2263.0
8.1	2270.0	2277.0	2284.0	2291.0	2298.0	2305.0	2312.0	2319.0	2326.0	2333.0
8.2	2340.0	2347.0	2354.0	2361.0	2368.0	2375.0	2382.0	2389.0	2396.0	2403.0
8.3	2410.0	2417.0	2424.0	2431.0	2438.0	2445.0	2452.0	2459.0	2466.0	2473.0
8.4	2480.0	2487.0	2494.0	2501.0	2508.0	2515.0	2522.0	2529.0	2536.0	2543.0
8.5	2550.0	2557.0	2564.0	2571.0	2578.0	2585.0	2592.0	2599.0	2606.0	2613.0
8.6	2620.0	2627.0	2634.0	2641.0	2648.0	2655.0	2662.0	2669.0	2676.0	2683.0
8.7	2690.0	2697.0	2704.0	2711.0	2718.0	2725.0	2732.0	2739.0	2746.0	2753.0
8.8	2760.0	2767.0	2774.0	2781.0	2788.0	2795.0	2802.0	2809.0	2816.0	2823.0
8.9	2830.0	2837.0	2844.0	2851.0	2858.0	2865.0	2872.0	2879.0	2886.0	2893.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
9.0	2900.0	2907.0	2914.0	2921.0	2928.0	2935.0	2942.0	2949.0	2956.0	2963.0
9.1	2970.0	2977.0	2984.0	2991.0	2998.0	3005.0	3012.0	3019.0	3026.0	3033.0
9.2	3040.0	3047.0	3054.0	3061.0	3068.0	3075.0	3082.0	3089.0	3096.0	3103.0
9.3	3110.0	3117.0	3124.0	3131.0	3138.0	3145.0	3152.0	3159.0	3166.0	3173.0
9.4	3180.0	3187.0	3194.0	3201.0	3208.0	3215.0	3222.0	3229.0	3236.0	3243.0
9.5	3250.0	3257.0	3264.0	3271.0	3278.0	3285.0	3292.0	3299.0	3306.0	3313.0
9.6	3320.0	3327.0	3334.0	3341.0	3348.0	3355.0	3362.0	3369.0	3376.0	3383.0
9.7	3390.0	3397.0	3404.0	3411.0	3418.0	3425.0	3432.0	3439.0	3446.0	3453.0
9.8	3460.0	3467.0	3474.0	3481.0	3488.0	3495.0	3502.0	3509.0	3516.0	3523.0
9.9	3530.0	3537.0	3544.0	3551.0	3558.0	3565.0	3572.0	3579.0	3586.0	3593.0

TEMPERATURE
TABLE 1 11/24/80
DEGREES CENTIGRADE

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
10.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5
10.1	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0
10.2	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5
10.3	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0
10.4	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.5
10.5	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	3.0
10.6	3.0	3.1	3.1	3.2	3.2	3.3	3.3	3.4	3.4	3.5
10.7	3.5	3.6	3.6	3.7	3.7	3.8	3.8	3.9	3.9	4.0
10.8	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.4	4.4	4.5
10.9	4.5	4.6	4.6	4.7	4.7	4.8	4.8	4.9	4.9	5.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
11.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5
11.1	5.5	5.6	5.6	5.7	5.7	5.8	5.8	5.9	5.9	6.0
11.2	6.0	6.1	6.1	6.2	6.2	6.3	6.3	6.4	6.4	6.5
11.3	6.5	6.6	6.6	6.7	6.7	6.8	6.8	6.9	6.9	7.0
11.4	7.0	7.1	7.1	7.2	7.2	7.3	7.3	7.4	7.4	7.5
11.5	7.5	7.6	7.6	7.7	7.7	7.8	7.8	7.9	7.9	8.0
11.6	8.0	8.1	8.1	8.2	8.2	8.3	8.3	8.4	8.4	8.5
11.7	8.5	8.6	8.6	8.7	8.7	8.8	8.8	8.9	8.9	9.0
11.8	9.0	9.1	9.1	9.2	9.2	9.3	9.3	9.4	9.4	9.5
11.9	9.5	9.6	9.6	9.7	9.7	9.8	9.8	9.9	9.9	10.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
12.0	10.0	10.1	10.1	10.2	10.2	10.3	10.3	10.4	10.4	10.5
12.1	10.5	10.6	10.6	10.7	10.7	10.8	10.8	10.9	10.9	11.0
12.2	11.0	11.1	11.1	11.2	11.2	11.3	11.3	11.4	11.4	11.5
12.3	11.5	11.6	11.6	11.7	11.7	11.8	11.8	11.9	11.9	12.0
12.4	12.0	12.1	12.1	12.2	12.2	12.3	12.3	12.4	12.4	12.5
12.5	12.5	12.6	12.6	12.7	12.7	12.8	12.8	12.9	12.9	13.0
12.6	13.0	13.1	13.1	13.2	13.2	13.3	13.3	13.4	13.4	13.5
12.7	13.5	13.6	13.6	13.7	13.7	13.8	13.8	13.9	13.9	14.0
12.8	14.0	14.1	14.1	14.2	14.2	14.3	14.3	14.4	14.4	14.5
12.9	14.5	14.6	14.6	14.7	14.7	14.8	14.8	14.9	14.9	15.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
13.0	15.0	15.1	15.1	15.2	15.2	15.3	15.3	15.4	15.4	15.5
13.1	15.5	15.6	15.6	15.7	15.7	15.8	15.8	15.9	15.9	16.0
13.2	16.0	16.1	16.1	16.2	16.2	16.3	16.3	16.4	16.4	16.5
13.3	16.5	16.6	16.6	16.7	16.7	16.8	16.8	16.9	16.9	17.0
13.4	17.0	17.1	17.1	17.2	17.2	17.3	17.3	17.4	17.4	17.5
13.5	17.5	17.6	17.6	17.7	17.7	17.8	17.8	17.9	17.9	18.0
13.6	18.0	18.1	18.1	18.2	18.2	18.3	18.3	18.4	18.4	18.5
13.7	18.5	18.6	18.6	18.7	18.7	18.8	18.8	18.9	18.9	19.0
13.8	19.0	19.1	19.1	19.2	19.2	19.3	19.3	19.4	19.4	19.5
13.9	19.5	19.6	19.6	19.7	19.7	19.8	19.8	19.9	19.9	20.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

TEMPERATURE
TABLE 1 11/24/80
DEGREES CENTIGRADE
FILE NUMBER IS TEMPERATURE

10	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
11	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
12	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
13	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0
14	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0
15	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0
16	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0
17	35.0	35.5	36.0	36.5	37.0	37.5	38.0	38.5	39.0
18	40.0	40.5	41.0	41.5	42.0	42.5	43.0	43.5	44.0
19	45.0	45.5	46.0	46.5	47.0	47.5	48.0	48.5	49.0
20	50.0	50.5	51.0	51.5	52.0	52.5	53.0	53.5	54.0
21	55.0	55.5	56.0	56.5	57.0	57.5	58.0	58.5	59.0
22	60.0	60.5	61.0	61.5	62.0	62.5	63.0	63.5	64.0
23	65.0	65.5	66.0	66.5	67.0	67.5	68.0	68.5	69.0
24	70.0	70.5	71.0	71.5	72.0	72.5	73.0	73.5	74.0
25	75.0	75.5	76.0	76.5	77.0	77.5	78.0	78.5	79.0
26	80.0	80.5	81.0	81.5	82.0	82.5	83.0	83.5	84.0
27	85.0	85.5	86.0	86.5	87.0	87.5	88.0	88.5	89.0
28	90.0	90.5	91.0	91.5	92.0	92.5	93.0	93.5	94.0
29	95.0	95.5	96.0	96.5	97.0	97.5	98.0	98.5	99.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STORAGE COMPLETED IN FILE TEMPERATURE

13.9	19.5	19.6	19.6	19.7	19.7	19.8	19.8	19.9	19.9	20.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
14.0	20.0	20.1	20.1	20.2	20.2	20.3	20.3	20.4	20.4	20.5
14.1	20.5	20.6	20.6	20.7	20.7	20.8	20.8	20.9	20.9	21.0
14.2	21.0	21.1	21.1	21.2	21.2	21.3	21.3	21.4	21.4	21.5
14.3	21.5	21.6	21.6	21.7	21.7	21.8	21.8	21.9	21.9	22.0
14.4	22.0	22.1	22.1	22.2	22.2	22.3	22.3	22.4	22.4	22.5
14.5	22.5	22.6	22.6	22.7	22.7	22.8	22.8	22.9	22.9	23.0
14.6	23.0	23.1	23.1	23.2	23.2	23.3	23.3	23.4	23.4	23.5
14.7	23.5	23.6	23.6	23.7	23.7	23.8	23.8	23.9	23.9	24.0
14.8	24.0	24.1	24.1	24.2	24.2	24.3	24.3	24.4	24.4	24.5
14.9	24.5	24.6	24.6	24.7	24.7	24.8	24.8	24.9	24.9	25.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
15.0	25.0	25.1	25.1	25.2	25.2	25.3	25.3	25.4	25.4	25.5
15.1	25.5	25.6	25.6	25.7	25.7	25.8	25.8	25.9	25.9	26.0
15.2	26.0	26.1	26.1	26.2	26.2	26.3	26.3	26.4	26.4	26.5
15.3	26.5	26.6	26.6	26.7	26.7	26.8	26.8	26.9	26.9	27.0
15.4	27.0	27.1	27.1	27.2	27.2	27.3	27.3	27.4	27.4	27.5
15.5	27.5	27.6	27.6	27.7	27.7	27.8	27.8	27.9	27.9	28.0
15.6	28.0	28.1	28.1	28.2	28.2	28.3	28.3	28.4	28.4	28.5
15.7	28.5	28.6	28.6	28.7	28.7	28.8	28.8	28.9	28.9	29.0
15.8	29.0	29.1	29.1	29.2	29.2	29.3	29.3	29.4	29.4	29.5
15.9	29.5	29.6	29.6	29.7	29.7	29.8	29.8	29.9	29.9	30.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
16.0	30.0	30.1	30.1	30.2	30.2	30.3	30.3	30.4	30.4	30.5
16.1	30.5	30.6	30.6	30.7	30.7	30.8	30.8	30.9	30.9	31.0
16.2	31.0	31.1	31.1	31.2	31.2	31.3	31.3	31.4	31.4	31.5
16.3	31.5	31.6	31.6	31.7	31.7	31.8	31.8	31.9	31.9	32.0
16.4	32.0	32.1	32.1	32.2	32.2	32.3	32.3	32.4	32.4	32.5
16.5	32.5	32.6	32.6	32.7	32.7	32.8	32.8	32.9	32.9	33.0
16.6	33.0	33.1	33.1	33.2	33.2	33.3	33.3	33.4	33.4	33.5
16.7	33.5	33.6	33.6	33.7	33.7	33.8	33.8	33.9	33.9	34.0
16.8	34.0	34.1	34.1	34.2	34.2	34.3	34.3	34.4	34.4	34.5
16.9	34.5	34.6	34.6	34.7	34.7	34.8	34.8	34.9	34.9	35.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
17.0	35.0	35.1	35.1	35.2	35.2	35.3	35.3	35.4	35.4	35.5
17.1	35.5	35.6	35.6	35.7	35.7	35.8	35.8	35.9	35.9	36.0
17.2	36.0	36.1	36.1	36.2	36.2	36.3	36.3	36.4	36.4	36.5
17.3	36.5	36.6	36.6	36.7	36.7	36.8	36.8	36.9	36.9	37.0
17.4	37.0	37.1	37.1	37.2	37.2	37.3	37.3	37.4	37.4	37.5
17.5	37.5	37.6	37.6	37.7	37.7	37.8	37.8	37.9	37.9	38.0
17.6	38.0	38.1	38.1	38.2	38.2	38.3	38.3	38.4	38.4	38.5
17.7	38.5	38.6	38.6	38.7	38.7	38.8	38.8	38.9	38.9	39.0
17.8	39.0	39.1	39.1	39.2	39.2	39.3	39.3	39.4	39.4	39.5
17.9	39.5	39.6	39.6	39.7	39.7	39.8	39.8	39.9	39.9	40.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
18.0	40.0	40.1	40.1	40.2	40.2	40.3	40.3	40.4	40.4	40.5
18.1	40.5	40.6	40.6	40.7	40.7	40.8	40.8	40.9	40.9	41.0
18.2	41.0	41.1	41.1	41.2	41.2	41.3	41.3	41.4	41.4	41.5
18.3	41.5	41.6	41.6	41.7	41.7	41.8	41.8	41.9	41.9	42.0
18.4	42.0	42.1	42.1	42.2	42.2	42.3	42.3	42.4	42.4	42.5
18.5	42.5	42.6	42.6	42.7	42.7	42.8	42.8	42.9	42.9	43.0
18.6	43.0	43.1	43.1	43.2	43.2	43.3	43.3	43.4	43.4	43.5

18.2	41.0	41.1	41.1	41.2	41.2	41.3	41.3	41.4	41.4	41.5
18.3	41.5	41.6	41.6	41.7	41.7	41.8	41.8	41.9	41.9	42.0
18.4	42.0	42.1	42.1	42.2	42.2	42.3	42.3	42.4	42.4	42.5
18.5	42.5	42.6	42.6	42.7	42.7	42.8	42.8	42.9	42.9	43.0
18.6	43.0	43.1	43.1	43.2	43.2	43.3	43.3	43.4	43.4	43.5
18.7	43.5	43.6	43.6	43.7	43.7	43.8	43.8	43.9	43.9	44.0
18.8	44.0	44.1	44.1	44.2	44.2	44.3	44.3	44.4	44.4	44.5
18.9	44.5	44.6	44.6	44.7	44.7	44.8	44.8	44.9	44.9	45.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
19.0	45.0	45.1	45.1	45.2	45.2	45.3	45.3	45.4	45.4	45.5
19.1	45.5	45.6	45.6	45.7	45.7	45.8	45.8	45.9	45.9	46.0
19.2	46.0	46.1	46.1	46.2	46.2	46.3	46.3	46.4	46.4	46.5
19.3	46.5	46.6	46.6	46.7	46.7	46.8	46.8	46.9	46.9	47.0
19.4	47.0	47.1	47.1	47.2	47.2	47.3	47.3	47.4	47.4	47.5
19.5	47.5	47.6	47.6	47.7	47.7	47.8	47.8	47.9	47.9	48.0
19.6	48.0	48.1	48.1	48.2	48.2	48.3	48.3	48.4	48.4	48.5
19.7	48.5	48.6	48.6	48.7	48.7	48.8	48.8	48.9	48.9	49.0
19.8	49.0	49.1	49.1	49.2	49.2	49.3	49.3	49.4	49.4	49.5
19.9	49.5	49.6	49.6	49.7	49.7	49.8	49.8	49.9	49.9	50.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
20.0	50.0	50.1	50.1	50.2	50.2	50.3	50.3	50.4	50.4	50.5
20.1	50.5	50.6	50.6	50.7	50.7	50.8	50.8	50.9	50.9	51.0
20.2	51.0	51.1	51.1	51.2	51.2	51.3	51.3	51.4	51.4	51.5
20.3	51.5	51.6	51.6	51.7	51.7	51.8	51.8	51.9	51.9	52.0
20.4	52.0	52.1	52.1	52.2	52.2	52.3	52.3	52.4	52.4	52.5
20.5	52.5	52.6	52.6	52.7	52.7	52.8	52.8	52.9	52.9	53.0
20.6	53.0	53.1	53.1	53.2	53.2	53.3	53.3	53.4	53.4	53.5
20.7	53.5	53.6	53.6	53.7	53.7	53.8	53.8	53.9	53.9	54.0
20.8	54.0	54.1	54.1	54.2	54.2	54.3	54.3	54.4	54.4	54.5
20.9	54.5	54.6	54.6	54.7	54.7	54.8	54.8	54.9	54.9	55.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
21.0	55.0	55.1	55.1	55.2	55.2	55.3	55.3	55.4	55.4	55.5
21.1	55.5	55.6	55.6	55.7	55.7	55.8	55.8	55.9	55.9	56.0
21.2	56.0	56.1	56.1	56.2	56.2	56.3	56.3	56.4	56.4	56.5
21.3	56.5	56.6	56.6	56.7	56.7	56.8	56.8	56.9	56.9	57.0
21.4	57.0	57.1	57.1	57.2	57.2	57.3	57.3	57.4	57.4	57.5
21.5	57.5	57.6	57.6	57.7	57.7	57.8	57.8	57.9	57.9	58.0
21.6	58.0	58.1	58.1	58.2	58.2	58.3	58.3	58.4	58.4	58.5
21.7	58.5	58.6	58.6	58.7	58.7	58.8	58.8	58.9	58.9	59.0
21.8	59.0	59.1	59.1	59.2	59.2	59.3	59.3	59.4	59.4	59.5
21.9	59.5	59.6	59.6	59.7	59.7	59.8	59.8	59.9	59.9	60.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
22.0	60.0	60.1	60.1	60.2	60.2	60.3	60.3	60.4	60.4	60.5
22.1	60.5	60.6	60.6	60.7	60.7	60.8	60.8	60.9	60.9	61.0
22.2	61.0	61.1	61.1	61.2	61.2	61.3	61.3	61.4	61.4	61.5
22.3	61.5	61.6	61.6	61.7	61.7	61.8	61.8	61.9	61.9	62.0
22.4	62.0	62.1	62.1	62.2	62.2	62.3	62.3	62.4	62.4	62.5
22.5	62.5	62.6	62.6	62.7	62.7	62.8	62.8	62.9	62.9	63.0
22.6	63.0	63.1	63.1	63.2	63.2	63.3	63.3	63.4	63.4	63.5
22.7	63.5	63.6	63.6	63.7	63.7	63.8	63.8	63.9	63.9	64.0
22.8	64.0	64.1	64.1	64.2	64.2	64.3	64.3	64.4	64.4	64.5
22.9	64.5	64.6	64.6	64.7	64.7	64.8	64.8	64.9	64.9	65.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
23.0	65.0	65.1	65.1	65.2	65.2	65.3	65.3	65.4	65.4	65.5

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
22.0	60.0	60.1	60.1	60.2	60.2	60.3	60.3	60.4	60.4	60.5
22.1	60.5	60.6	60.6	60.7	60.7	60.8	60.8	60.9	60.9	61.0
22.2	61.0	61.1	61.1	61.2	61.2	61.3	61.3	61.4	61.4	61.5
22.3	61.5	61.6	61.6	61.7	61.7	61.8	61.8	61.9	61.9	62.0
22.4	62.0	62.1	62.1	62.2	62.2	62.3	62.3	62.4	62.4	62.5
22.5	62.5	62.6	62.6	62.7	62.7	62.8	62.8	62.9	62.9	63.0
22.6	63.0	63.1	63.1	63.2	63.2	63.3	63.3	63.4	63.4	63.5
22.7	63.5	63.6	63.6	63.7	63.7	63.8	63.8	63.9	63.9	64.0
22.8	64.0	64.1	64.1	64.2	64.2	64.3	64.3	64.4	64.4	64.5
22.9	64.5	64.6	64.6	64.7	64.7	64.8	64.8	64.9	64.9	65.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
23.0	65.0	65.1	65.1	65.2	65.2	65.3	65.3	65.4	65.4	65.5
23.1	65.5	65.6	65.6	65.7	65.7	65.8	65.8	65.9	65.9	66.0

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

WATER QUALITY ANALYSIS
3-16-80 LAB ID # 274087 RECORD # 30132

SAMPLE LOCATION: EVACUATION CR NR MOUTH NR WATSON,UT
STATION ID: 09306430 LAT.LONG.SEC.: 395704 1[illegible]0931 00
DATE OF COLLECTION: BEGIN--790925 END-- TIME--1930
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATIO : 464911300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
THERE HAD BEEN RAIN SHOWERS, 2 HRS. BEFORE SAMPLING DO=5.4
#1025, 1031 #260.10

ALK.TOT(CACO3)	MG/L	450	NO2+NO3 AS N DISS	MG/L	0.49
ALUMINUM DISSOLVED	UG/L	10	PH FIELD		5.0
ANALYZING AGENCY		50020	PH LAB		8.0
ARSENIC DISSOLVED	UG/L	1	PHENOLS	UG/L	4
BARIUM DISSOLVED	UG/L	100	PHOS ORTHO DIS AS P	MG/L	0.03
BORON DISSOLVED	UG/L	2400	PHOSPHATE DIS ORTHO	MG/L	0.04
BROMIDE	MG/L	0.4	PHOSPHORUS DIS AS P	MG/L	0.01
CADMIUM DISSOLVED	UG/L	0	PHOSPHORUS TOT AS P	MG/L	0.03
CALCIUM DISS	MG/L	150	PHOSPHORUS TOT PO4	MG/L	0.04
CARBON DIS ORGANIC	MG/L	19	POTASSIUM DISS	MG/L	11
CHLORIDE DISS	MG/L	59	POTASSIUM 40,D.PCI/L		8.2
CHROMIUM DISSOLVED	UG/L	20	RESIDUE DIS CALC SUM	MG/L	4710
COD	MG/L	45	RESIDUE DIS TONS/AFT		6.41
COPPER DISSOLVED	UG/L	0	SAR		12
FLUORIDE DISS	MG/L	0.8	SELENIUM DISSOLVED	UG/L	1
HARDNESS NONCARB	MG/L	790	SILICA DISSOLVED	MG/L	11
HARDNESS TOTAL	MG/L	1200	SODIUM + POTASSIUM	MG/L	1000
IRON DISSOLVED	UG/L	40	SODIUM DISS	MG/L	990
LEAD DISSOLVED	UG/L	0	SODIUM PERCENT		63
LITHIUM DISSOLVED	UG/L	150	SP. CONDUCTANCE FLD		5800
MAGNESIUM DISS	MG/L	210	SP. CONDUCTANCE LAB		5532
MANGANESE DISSOLVED	UG/L	290	STRONTIUM DISSOLVED	UG/L	4100
MERCURY DISSOLVED	UG/L	0.0	SULFATE DISS	MG/L	3000
MOLYBDENUM DISSOLVED	UG/L	38	SULFIDE TOTAL	MG/L	0.0
NITR. NH4 AS NH4 DIS	MG/L	0.00	VANADIUM DISSOLVED	UG/L	0
NITROGEN NH4 ASN DIS	MG/L	0.00	WATER TEMP (DEG C)		13.5
NITROGEN TOTKJD AS N	MG/L	0.96	ZINC DISSOLVED	UG/L	40

CONTINUED ON NEXT PAGE

WATER QUALITY ANALYSIS CONTINUED
LAB ID # 274087 RECORD # 30132

SAMPLE LOCATION: EVACUATION CR NR MOUTH NR WATSON,UT
STATION ID: 09306430 LAT.LONG.SEQ.: 395704 1090931 00
DATE OF COLLECTION: BEGIN--790926 END-- TIME--0930

CATIONS			ANIONS		
	(MG/L)	(MEQ/L)		(MG/L)	(MEQ/L)
CALCIUM DISS	150	7.485	CHLORIDE DISS	59	1.664
MAGNESIUM DISS	210	17.275	FLUORIDE DISS	0.8	0.042
POTASSIUM DISS	11	0.281	SULFATE DISS	3000	62.460
SODIUM DISS	990	43.065	ALK.TOT(CACO3)	450	8.991
			NO2+NO3 AS N D	0.49	0.035
TOTAL		68.106	TOTAL		73.192

PERCENT DIFFERENCE = -3.60

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB ID # 33002 RECORD # 67511

4/9/80

SAMPLE LOCATION: EVACUATION CR NR MOUTH NR WATSON,UT
STATION ID: 09306430 LAT.LONG.SEQ.: 395704 1090931 00
DATE OF COLLECTION: BEGIN--800130 END-- TIME--1000
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 4649~~1~~900 113
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
DO=6.8. HAD 5 IN NEW SNOW OVER FROZEN CHANNEL AND BANKS. COLLECTED BY B. HALE

1005, 1031 SL/8.45

ALK.TOT(CACO3)	MG/L	460	PHOSPHATE DIS ORTHO	MG/L	0.03
ANALYZING AGENCY		80020	POTASSIUM DISS	MG/L	7.3
BORON DISSOLVED	UG/L	1800	POTASSIUM 40.D.PCI/L		5.4
CALCIUM DISS	MG/L	170	RESIDUE DIS CALC SUM	MG/L	3600
CHLORIDE DISS	MG/L	48	RESIDUE DIS TON/AFT		4.90
FLUORIDE DISS	MG/L	1.5	RESIDUE DIS TON/DAY		1.14
HARDNESS NONCARB	MG/L	660	SAR		9.2
HARDNESS TOTAL	MG/L	1100	SILICA DISSOLVED	MG/L	12
IRON DISSOLVED	UG/L	40	SODIUM + POTASSIUM	MG/L	720
MAGNESIUM DISS	MG/L	170	SODIUM DISS	MG/L	710
MANGANESE DISSOLVED	UG/L	150	SODIUM PERCENT		58
NO2+NO3 AS N DISS	MG/L	0.54	SP. CONDUCTANCE FLD		4900
PH FIELD		9.2	SP. CONDUCTANCE LAB		4442
PH LAB		DETR. DELETED	STREAMFLOW(CFS)-INST		0.12
PHOS ORTHO DIS AS P	MG/L	0.01	SULFATE DISS	MG/L	2200
			WATER TEMP (DEG C)		0.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	170	8.483	CHLORIDE DISS	48	1.354
MAGNESIUM DISS	170	13.984	FLUORIDE DISS	1.5	0.079
POTASSIUM DISS	7.3	0.187	SULFATE DISS	2200	45.804
SODIUM DISS	710	30.885	ALK.TOT(CACO3)	460	9.191
			NO2+NO3 AS N D	0.54	0.039
TOTAL		53.539	TOTAL		56.466

PERCENT DIFFERENCE = -2.66

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 137038 RECORD-# 90505

6-14-80

SAMPLE LOCATION: EVACUATION CR NR MOUTH NR WATSON,UT
STATION ID: 09306430 LAT.LONG.SEQ.: 395704 1090931 00
DATE OF COLLECTION: BEGIN--800513 END-- TIME--1245
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464921300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
DO=7.8; COLL BY B. HALE
#1025, #1031, #1064 nitrite nitrate as N, diss

ALK,TOT(CACO3)	MG/L	310	NO2+NO3 AS N DISS	MG/L	0.86
ALUMINUM DISSOLVED	UG/L	10	PH FIELD		8.5
ANALYZING AGENCY		80020	PH LAB		8.3
ARSENIC DISSOLVED	UG/L	2	PHOS ORTHO DIS AS P	MG/L	0.01
BORON DISSOLVED	UG/L	450	PHOSPHATE DIS ORTHO	MG/L	0.03
CADMIUM DISSOLVED	UG/L	0	PHOSPHORUS TOT AS P	MG/L	2.6
CALCIUM DISS	MG/L	100	PHOSPHORUS TOT PO4	MG/L	8.0
CHLORIDE DISS	MG/L	16	POTASSIUM DISS	MG/L	5.7
CHROMIUM DISSOLVED	UG/L	0	POTASSIUM 40,D.PCI/L		4.3
COD	MG/L	35	RESIDUE DIS CALC SUM	MG/L	1740
COPPER DISSOLVED	UG/L	6	RESIDUE DIS TON/AFT		2.37
FLUORIDE DISS	MG/L	0.4	RESIDUE DIS TON/DAY		75.2
HARDNESS NONCARB	MG/L	320	SAR		5.7
HARDNESS TOTAL	MG/L	630	SELENIUM DISSOLVED	UG/L	2
IRON DISSOLVED	UG/L	20	SILICA DISSOLVED	MG/L	7.2
LEAD DISSOLVED	UG/L	2	SODIUM DISS	MG/L	330
MAGNESIUM DISS	MG/L	93	SODIUM PERCENT		53
MANGANESE DISSOLVED	UG/L	10	SP. CONDUCTANCE FLD		2300
MERCURY DISSOLVED	UG/L	0.0	SP. CONDUCTANCE LAB		2489
NITR. NH4 AS NH4 DIS	MG/L	0.09	STREAMFLOW(CFS)-INST		16
NITROGEN NH4 ASN DIS	MG/L	0.07	SULFATE DISS	MG/L	1000
NITROGEN, NH4+ORG TOT	MG/L	12	WATER TEMP (DEG C)		15.2
			ZINC DISSOLVED	UG/L	20

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	100	4.990	CHLORIDE DISS	16	0.45
MAGNESIUM DISS	93	7.650	FLUORIDE DISS	0.4	0.02
POTASSIUM DISS	5.7	0.146	SULFATE DISS	1000	20.82
SODIUM DISS	330	14.355	ALK,TOT(CACO3)	310	6.19
			NO2+NO3 AS N D	0.86	0.06
	TOTAL	27.141		TOTAL	27.54

PERCENT DIFFERENCE = -0.74

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
9-16-80 LAB-ID # 212043 RECORD-# 117160

SAMPLE LOCATION: EVACUATION CR NR MOUTH NR WATSON,UT
STATION ID: 09306430 LAT.LONG.SEQ.: 395704 1090931 00
DATE OF COLLECTION: BEGIN--800728 END-- TIME--1030
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464921300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
D.O.=8.5; LOW FLOW, NO THUNDERSHOWERS IN AREA

#1025, 1031 * 48.45

ALK,TOT(CACO3)	MG/L	250	PHOS.DIS ORTHO -PO4	MG/L	0.00
ANALYZING AGENCY		80020	POTASSIUM DISS	MG/L	7.9
BORON DISSOLVED	UG/L	8600	POTASSIUM 40,D.PCI/L		5.9
CALCIUM DISS	MG/L	170	RESIDUE DIS CALC SUM	MG/L	3030
CHLORIDE DISS	MG/L	37	RESIDUE DIS TON/AFT	E	4.12
FLUORIDE DISS	MG/L	1.0	RESIDUE DIS TON/DAY	E	4.91
HARDNESS NONCARB	MG/L	750	SAR		8.3
HARDNESS TOTAL	MG/L	1000	SILICA DISSOLVED	MG/L	7.5
IRON DISSOLVED	UG/L	40	SODIUM DISS	MG/L	600
MAGNESIUM DISS	MG/L	140	SODIUM PERCENT		56
MANGANESE DISSOLVED	UG/L	80	SP. CONDUCTANCE FLD		3800
NITR DIS NO2+NO3 -N	MG/L	1.3	SP. CONDUCTANCE LAB		4045
PH FIELD		8.3	STREAMFLOW(CFS)-INST	E	0.60
PH LAB		8.1	SULFATE DISS	MG/L	1900
PHOS DIS ORTHO AS P	MG/L	0.00	WATER TEMP (DEG C)		19.0

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	170	8.483	CHLORIDE DISS	37	1.044
MAGNESIUM DISS	140	11.516	FLUORIDE DISS	1.0	0.053
POTASSIUM DISS	7.9	0.202	SULFATE DISS	1900	39.558
SODIUM DISS	600	26.100	ALK,TOT(CACO3)	250	4.995
			NITR DIS NO2+N	1.3	0.093
TOTAL		46.301	TOTAL		45.742

PERCENT DIFFERENCE = 0.61

0.04350 0.02557 0.0499 0.08226 0.02821 HCO_3^-=.01634 $CO_3^{=}$=.00333 0.00382

TATION + PERIOD	Na		K		Ca		Mg		Cl		HCO_3		SO_4		TDS	+ ion %
	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	
6430 1/30/80	710	30.9	7.3	0.2	170	8.5	170	14.0	48	1.4	560	9.2	2200	45.8	3600	
6430 5/13/80	330	14.4	5.7	0.1	100	5.00	93	7.7	16	.5	380	6.2	1000	20.8	1740	
6430 7/28/80	600	26.1	7.9	0.2	170	8.5	140	11.5	37	1.0	305	5.0	1900	39.6	3230	
6410 6/2/80	210	9.1	2.8	0.1	74	3.7	73	6.0	7.9	0.2	380	6.2	600	12.5	1170	

(Rev. May 1951)

Daily CONDUCTIVITY IN MICRO-MHOS PER CENTIMETER 09306430

X10 At Evaporation Ck. nr. Mouth. for the Year Ending September 30, 1950

Drainage Area ..... Square Miles. Water-Stage Recorder ..... Ratio ..... : .....

Day	October 1949 Conductivity		November Conductivity		December Conductivity		January 1950 Conductivity		February Conductivity		March Conductivity	
1			4107	4037	4131	4081	4100	4080	3828	4158	1974	2024
2	3718	3678	4095	4025	4088	4028	4080	4060	3757	4147	1838	1888
3	3624	3614		b	3894	3824	4096	4106	3731	4171	1825	1885
4	3602	3592		b	4094	4024	4085	4095	3839	4339	2864	2924
5	3503	3483		b	4232	4222	4083	4103	4290	4300	3944	3954
6	3511	3491	a		4242	4222	4079	4099	4251	4261	3910	3920
7	3519	3489		b	4229	4209	4060	4080	4216	4226	3898	3918
8	3503	3473		b	4210	4180	4026	4056	4315	4325	3924	3944
9	3552	3522		b	4235	4195	3983	4013	4359	4369	3926	3946
10	3568	3538		b	4216	4176	3848	3878	4344	4354	3908	3928
11	3579	3539		b	4249	4199	4102	4142	4328	4338	3912	3942
12	3590	3550		b	4350	4300	4030	4070	4313	4333	3904	3934
13	3619	3579		b	4387	4387	4025	4065	4255	4275	3898	3928
14	3636	3596		b	4375	4375	2396	2436	4208	4228	3817	3857
15	3605	3555		b	4348	4348	878	928	4192	4212	3844	3884
16	3612	3562		b	4232	4232	1738	1788	1981	2001	3829	3869
17	3601	3551		b	4209	4209	1965	2015	630	650	3860	3908
18	3524	3474		b	4216	4216	2297	2357	456	476	3907	3897
19	3892	3842	4143	4173	4215	4215	2510	2570	439	449	3933	3923
20	3650	3640	4075	4105	4179	4179	2618	2678	415	425	3903	3893
21	2529	2509	a		4123	4123		b b	640	650	3840	3830
22	2335	2305	4287	4307	4073	4163		b b	1407	1427	3101	3681
23	3465	3425	4177	4187	4148	4138		b b	1482	1502	3546	3526
24	3547	3497	4150	4160	4152	4142		b b	921	941	3570	3550
25	3536	3476	4111	4111	4145	4135	3704	3774	894	924	3694	3674
26	3814	3644	4096	4086	4156	4146	3779	3789	1494	1524	3681	3661
27	4103	4033	4252	4242	4167	4157	3765	3825	1678	1708	3444	3424
28	4106	4036	4291	4271	4127	4117	3703	3813	1727	1767	3752	3732
29	3954	3884	4393	4363	4174	4154	3717	3887	2289	2329	3869	3849
30	4105	4035	4306	4266	4143	4123	3867	4087			3764	3744
31	4109	4079			4126	4106	3841	4121			3702	3682
Total												
Mean												
Maximum												
Minimum												
Inches												

Water Year

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION.

S-2

Station Number 414206430

Used rating table dated _____

Gage height is used to half tenths between _____ and _____ ft.
Interpolate below and for the above these limits.

X10

Gage Read to _____ Once / Twice a Day by _____

EOHC CR

1950

Day	April Conductivity	Shift		May Conductivity	Shift		June Conductivity	Shift		July Conductivity	Shift		August Conductivity	Shift		September Conductivity	Shift	
1	3850	+2	3830	6734	+44	3174	1270	+169	2960	3379	+39	3769	3595	+20	3795	3968	+2	3998
2	4025	+3	4005	2736	+47	3206	1256	+178	3096	3309	+42	3729	3527	+36	3787	3782	+14	3832
3	3879	+1	3889	2923	+50	3423	1639	+190	3629	1286	0	1286	3453	+33	3783	3687	+5	3737
4	3942	+1	3952	2997	+53	3527	1491	+2	1511	1304	0	1304	3449	+39	3839	3714	+6	3774
5	3468	+3	3498	3046	+56	3606	1497	+3	1527	1363	0	1363	3631	+50	4081	3495	+10	3505
6	2965	+5	3015	3143	+1	3153	1571	+4	1611	1404	0	1404	3708	0	3708	3284	+10	3294
7	3095	+7	3165	2974	+2	2994	1692	+5	1742	1454	0	1454	3527		3527	2680	+20	2700
8	3174	+9	3264	2820	+3	2850	1695	+6	1755	1511	0	1511	3081		3081	824	+20	844
9	3296	+11	3406	2398	+4	2438	1698	+7	1768	1606	0	1606	3395		3395	1004	+30	1034
10	3296	+13	3426	2123	+5	2173	1712	+8	1792	1739	-1	1729	3718		3718	1115	+30	1145
11	3199	+15	3349	2476	+6	2536	1739	+9	1829	1891	-1	1881	3559		3559	1053	+40	1093
12	3166	+17	3336	1694	+7	1764	2843	+10	2943	2091	-1	2081	3279		3279	2845	+40	2885
13	3157	+17	3327	1898	+9	1968	3437	+1	3447	2260	-1	2250	3413		3413	4016	-10	4006
14	3723	+19	3913	2142	-1	2152	3408	+3	3428	2386	-1	2376	3312		3312	3831	-10	3821
15	44[illegible]	+2	4424	1706	-2	1726	3291		3311	2490	-1	2480	3778	0	3778	3623	-10	3613
16	4255	+21	4275	1458	-3	1488	3216		3246	2543	-1	2533	3611	0	3611	3623	-10	3613
17	4178	+4	4218	1116	-4	1156	3150	+3	3180	3219	-1	3209	2222	+1	2232	3808	-10	3798
18	4010	+6	4070	1271	-5	1307	3417	+3	3447	3580	+1	3590	2477	+1	2487	4095	0	4095
19	3865	+8	3945	1633	-6	1693	3547	+3	3577	3539	+10	3549	251	+1	2521	4071	+10	4081
20	3748	+11	3858	1546	-6	1606	3485	+6	3545	3495	+10	3505	2524	+1	2534	4004	+10	4014
21	3478	+14	3618	1518	+5	1568	3445	+9	3535	3445	+10	3455	2532	+1	2542	3978	+10	3988
22	3104	+20	3274	1407	+24	1607	3403	+12	3523	3348	+10	3358	3194	+2	3214	4115	+20	4135
23	3010	+20	3210	1373	+35	1733	3390	+15	3540	3422	+20	3442	3818	+30	4118	4053	+20	4073
24	2919	+23	3149	1520	+50	2020	3386	+18	3566	3108	+20	3128	3512	+58	4092	3923	+30	3953
25	2833	+24	3113	1522	+65	2172	3373	+21	3583	2816	+20	2836	a			3716	+30	3746
26	2995	+24	3285	1369	+80	2169	3359	+24	3599	2850	+20	2870	a			3505	+30	3535
27	3019	+32	3339	1403	+95	2353	3354	+27	3624	2846	+20	2866	a			3428	+40	3468
28	3060	+35	3410	1481	+110	2583	3361	+30	3669	3359	+20	3379	4264	0	4264	3444	+40	3484
29	3035	+38	3415	1452	+125	2702	3384	+33	3714	3595	+20	3615	4358	+10	4368	3858	+40	3898
30	2919	+41	3329	1401	+140	2809	3554	+36	3914	3644	+18	3724	4131	+10	4141	4128	+20	4148
31				1350	+154	2890				3601	+14	3741	4016	+20	4036			

Day | First Quarter | Second | Third | Computed | Checked

Fourth Quarter | First | Second | Third | Fourth Quarter | Disch. applied | Disch. checked | G.H. copied | G.H. checked

Period
Year

CONDUCTIVITY

FORM 9-
(Rev. 11-69)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)

DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 093064

Discharge measurements of EVANS CR. NR. MOUTH, NR. WILSON X 10 during the year ending Sept 30, 19..

No.	Date	Made by—	Width	Area	Mean velocity	Gage height DIAL	Discharge FIELD	Rating Shift adj.	Rating % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. con.	PZF	REMARKS
			Feet	Sq ft	Fps	Feet	Cfs	Feet				Feet	Hr		°C				
10-2-79	1100					3740	3700	-4											
10-19-79	1100					4150	4100	-5											
10-26-79	1215					4070	4000	-7											
11-6-79	1050					4070	4000	-7											
11-19-79	1055					4070	4100	+3											
12-4-79	1145					4170	4100	-7											
12-12-79	1208					4150	4100	-5											
1-2-80	1028					4060	4000	-6											
1-25-80	1100					3730	3800	+7											
2-4-80	1130					3650	4150	+50											
2-18-80	1005					630	650	+2											
2-19-80	1205					570	580	+1											
2-22-80	1045					1680	1700	+2											
3-4-80	1045					3940	4000	+6											
3-17-80	1110					3960	4000	+4											
4-2-80	1300					4320	4300	-2											

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FORM 9-207
(Rev. 11-69)

CONDUCTIVITY

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)

DISCHARGE MEASUREMENT SUMMARY SHEET

Station No 09306420

Discharge measurements of EVACUATION CREEK NR. MOUTH. X10 during the year ending Sept 30, 19...

No.	Date	Made by—	Width	Area	Mean velocity	Gage height DIG	Discharge FIELD	Rating Shift adj.	Rating % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. con.	PZF	REMARKS
			Feet	Sq ft	Fps	Feet	Cfs	Feet				Feet	Hr		°C				
4-14-80		1345				4110	4300	+19											
5-5-80		1150				2940	3500	+56											
5-5-80		1315				3400	3400	0											
5-13-80		1259				2230	2300	+7											
5-20-80		1108				2760	2700	-6											
6-3-80		0922				1210	3200	+199											
6-3-80		1059				2330	2330	0											
6-12-80		0851				3200	3300	+10											
6-18-80		0945				3670	3700	+3											
7-2-80		0805				3380	3800	+42											
7-2-80		0825				3710	3800	+1											
7-17-80		0930				3110	3700	-1											
7-28-80		0958				3810	3830	+2											
8-5-80		0930				3450	3900	+45											
8-5-80		1002				3890	3890	0											
8-15-80		0933				—	3900	0											
8-21-80		1150				3890	3900	+1											

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FORM 9-207
Rev. 11-69

CONDUCTIVITY

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)

DISCHARGE MEASUREMENT SUMMARY SHEET

Station 9306943

Discharge measurements of EVACUATION CREEK NR. MOUTH X10 during the year ending Sept 30, 1980

No.	Date	Made by—	Width	Area	Mean velocity	~~Gage~~ Height	Discharge	Rating Shift adj.	Rating % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER	Temperature AIR	Time of temperature	Sp. con.	PZF	REMARKS
			Feet	Sq ft	Fps	DAL Feet	FIELD Cfs	Feet				Feet	Hr		°C					
8-27-80		1130				40	1450	+144												
8-28-80		0928				4000	4000	0												
9-4-80		1130				3690	3750	+6												
9-12-80		0928				3860	3900	+4												
9-17-80		1516				4110	4100	-1												
9-29-80		1000				4160	4200	+4												
10-6-80		1201				4020	4100	+8												

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(Rev. May 1971)

Daily TEMPERATURE IN CENTIGRADE 09306430

At Near EUHCHATION CR. NR. MOUTH, NR. WATSON for the Year Ending September 30, 19 80

Drainage Area ..... Square Miles. Water-Stage Recorder ..... Ratio ..... : .....

Day	October 1979 Temperature	Shift		November Temperature	Shift		December Temperature	Shift		January 1980 Temperature	Shift		February Temperature	Shift		March Temperature	Shift	
1				3.6		3.6	.4		.1	1.2		.3	.4		.3	6.2		6.0
2	17.2	0	17.2	4.1		4.1	.5		.2	1.4		.5	.5		.4	6.3		6.1
3	13.4		13.4	4.5		4.5	.8		.5	1.9		1.8	.8		.7	6.7		6.5
4	12.9		12.9	4.6		4.6	1.0		.7	1.2		1.1	1.1		1.0	7.7		7.5
5	13.4		13.4	4.9		4.9	1.3	0	1.3	1.4		1.3	.8		.9	6.9		6.8
6	13.3		13.3	5.5	0	5.5	1.2		1.1	.9		.8	1.1		1.0	6.6		6.5
7	13.6		13.6	4.9		4.8	1.6		1.4	1.0		.9	1.5		1.3	7.7		7.6
8	13.2		13.2	6.0		5.9	2.0		1.7	1.3		1.2	.7		.5	8.0		7.9
9	12.2		12.2	5.8		5.7	1.4		1.1	1.7		1.6	.5		.3	7.7		7.6
10	11.9	0	11.9	4.3		4.2	1.5		1.1	1.5		1.4	.5		.3	8.2		8.1
11	11.9		11.8	4.6		4.5	1.3		.9	.7		.6	.5		.3	7.6		7.5
12	12.4		12.3	3.5		3.4	.5		.1	.9		.8	.5		.3	7.4		7.3
13	12.4		12.3	3.0		2.8	.5	0	.5	1.2		1.1	.6		.4	7.9		7.8
14	11.6		11.5	2.7		2.5	.5		.4	1.1		.9	1.1		.8	8.6		8.5
15	12.3		12.1	2.4		2.2	.5		.3	.5		.3	2.0		1.7	7.8		7.7
16	12.0		11.8	2.2		2.0	.6		.3	.8		.6	.7		.4	6.5		6.4
17	11.1		10.9	2.0		1.8	.6		.3	1.2		1.0	.6		.3	6.7		6.6
18	12.6		12.4	3.5		3.3	.6		.2	1.6		1.4	.5		.2	7.8	0	7.8
19	12.6		12.4	1.7		1.5	.6		.2	.4		.2	.8	0	.8	8.3		8.3
20	7.2	0	7.2	2.3	0	2.3	.6		.1	.5		.3	1.3		1.4	8.6		8.6
21	7.2		7.2	1.5	0	1.5	.8		.3	1.1		.9	2.1		3.0	8.6		8.6
22	6.7		6.7	.6	0	.6	1.3		.7	1.6		1.4	3.9		6.3	8.4		8.4
23	8.1		8.1	.4	0	.4	1.3		.7	1.0		.8	3.6		3.5	9.6		9.6
24	8.7		8.7	.5		.4	1.3		.6	1.5		1.3	4.5		4.4	8.8		8.8
25	9.0		9.0	1.1		1.0	1.3		.6	1.7		1.5	4.7		4.6	6.9		6.9
26	9.6	0	9.6	1.3		1.2	1.0		.2	1.1		1.0	5.9		5.8	8.7		8.7
27	8.4		8.4	.6		.5	.9		.1	.6		.5	6.6		6.5	7.6		7.6
28	7.3		7.3	.5		.3	1.2		.4	.9		.8	6.9		6.8	4.8		4.8
29	6.2		6.2	.4		.2	.6		0	1.3		1.2	6.0		5.8	6.8		6.8
30	4.4		4.4	.4		.2	.9		.0	.4		.3				3.7		3.7
31	3.5		3.5				1.1		.2	.4		.3				6.0	0	6.0
Total																		
Mean																		
Maximum																		
Minimum																		
Inches																		

Min. Discharge ..... CFS on ..... (Ct. H. ..... ft.). Min. G. H. ..... ft. on ..... for Year

River Creek

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

EVACUATION CREEK NR MOAB, NR. WATSON
7-4/80

Gage Read to _____ Once / Twice a Day by _____

Used rating table dated _____

Gage heights used to half tenths ~~between~~ _____ and _____ f
hundredths below and tenths above ~~these~~ limits.

DAY	APRIL Temperature		MAY Temperature		JUNE Temperature		JULY Temperature		AUGUST Temperature		SEPTEMBER Temperature		DAY
	SHIFT		SHIFT		SHIFT		SHIFT		SHIFT		SHIFT		
1	7.3	7.3	14.2	13.5	13.8	13.8	16.9	16.7	18.5	18.4	15.6	15.6	1
2	5.4	5.4	15.0	14.3	13.2	13.2	17.8	17.6	18.9	18.8	15.9	15.9	2
3	7.8	7.8	15.5	14.8	14.0	14.0	20.4	20.4	17.5	17.4	16.4	16.4	3
4	9.5	9.5	16.4	15.7	14.0	14.0	19.1	19.2	17.2	17.1	17.8	17.8	4
5	9.1	9.1	16.0	15.3	14.2	14.2	18.3	18.4	17.8	17.7	16.3	16.4	5
6	7.8	7.8	15.3	15.3	13.9	13.9	17.7	17.8	18.1	18.0	17.8	17.9	6
7	6.2	6.2	14.2	14.2	14.2	14.2	17.5	17.7	18.7	18.6	15.6	15.7	7
8	8.4	8.3	14.7	14.7	14.5	14.5	17.8	18.1	18.8	18.9	16.1	16.2	8
9	9.0	8.9	13.2	13.1	14.8	14.8	18.1	18.5	18.9	18.8	15.8	15.8	9
10	9.1	9.0	12.9	12.8	14.8	14.8	18.3	18.8	18.1	18.1	16.3	16.3	10
11	5.6	5.5	11.5	11.4	14.4	14.4	18.5	19.1	17.6	17.7	15.6	15.6	11
12	6.9	6.8	9.7	9.6	15.0	15.0	18.1	18.8	17.1	17.2	16.9	16.9	12
13	9.1	9.0	12.1	12.0	14.2	14.2	17.6	19.4	18.0	18.1	16.1	16.2	13
14	10.1	10.0	12.1	12.0	14.2	14.2	17.5	18.4	19.4	19.5	15.0	15.3	14
15	10.6	10.5	13.2	12.5	14.5	14.5	17.2	18.1	18.0	18.1	15.2	15.7	15
16	10.4	10.3	13.7	12.4	14.7	14.7	17.4	17.4	17.9	18.1	15.5	16.2	16
17	11.2	11.1	11.4	9.5	15.1	15.1	19.2	20.2	17.8	18.2	15.0	15.9	17
18	12.1	11.9	13.9	11.4	15.4	15.4	17.7	17.7	16.9	17.4	15.1	15.0	18
19	12.8	12.1	14.9	11.8	15.6	15.6	17.6	17.6	14.4	15.0	14.9	14.8	19
20	12.8	12.5	17.2	13.5	15.4	15.4	17.5	17.5	15.7	16.4	15.0	14.9	20
21	12.6	12.3	17.7	17.7	15.4	15.4	17.6	17.6	16.4	17.2	13.9	13.8	21
22	13.3	12.9	16.1	16.1	15.5	15.5	17.7	17.7	16.0	16.1	13.0	12.9	22
23	12.8	12.4	15.2	15.2	14.9	14.9	17.7	17.7	17.5	17.7	12.9	12.8	23
24	11.8	11.4	12.3	12.3	15.3	15.3	18.0	18.0	19.0	19.3	13.0	12.9	24
25	11.9	11.4	10.0	10.0	15.5	15.5	18.5	18.5	16.2	16.6	13.0	12.8	25
26	12.6	12.1	11.5	11.5	15.7	15.6	18.4	18.4	16.3	16.8	13.3	13.1	26
27	13.4	12.9	12.3	12.3	15.6	15.5	18.0	18.0	18.0	18.5	14.1	13.9	27
28	14.3	13.8	13.4	13.4	15.7	15.6	17.9	17.9	16.9	16.9	14.4	14.2	28
29	13.5	12.9	14.6	14.6	16.3	16.2	17.4	17.4	16.4	16.4	14.1	13.9	29
30	12.7	12.1	14.7	14.7	16.5	16.4	18.7	18.7	15.5	15.5	13.9	13.7	30
31			14.1	14.1			18.3	18.3	14.9	14.9			31

	Fourth	Third	Second	First	Quarter	Computed	Checked

	Fourth	Third	Second	First	Quarter	Disch. applied	Disch. checked

	Fourth	Third	Second	First	Quarter	G. H. copied	G. H. checked

PERIOD
YEAR

FORM [illegible]
(Rev. 1[illegible])

TEMPERATURE

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)
DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 09306430

Discharge measurements of EQUATION CREEK NR. MOUTH during the year ending Sept 30, 19[illegible]

No.	Date	Made by—	Width	Area	Mean velocity	~~Gage height~~ Dial	~~Discharge~~ FIELD	Rating: Shift adj.	Rating: % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. cond.	PZF	REMARKS
			Feet	Sq ft	Fps	Feet	Cfs	Feet				Feet	Hr		°C				
	8-5-80		0928			16.6	16.5	-.1											
	8-5-80		0958			18.9	18.8	-.1											
	8-15-80		0920			16.4	16.5	+.1											
	8-21-80		1110			19.7	20.5	+.8											
	8-21-80		1202			24.1	24.1	0											
	8-27-80		0900			13.5	14.0	+.5											
	8-27-80		0950			14.0	14.0	0											
	9-4-80		1129			19.2	19.2	0											
	9-4-80		1200			22.9	23.0	+.1											
	9-12-80		0930			12.9	12.9	0											
	9-17-80		1525			24.1	25.0	+.9											
	10-6-80		1159			18.8	18.6	-.2											

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FORM 9-207
Rev. 11-69

TEMPERATURE

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)

DISCHARGE MEASUREMENT SUMMARY SHEET

Station 1930642

Discharge measurements of EVACUATION CREEK NR. MOUTH during the year ending Sept 30, 19[illegible]

No.	Date	Made by—	Width	Area	Mean velocity	Gage height DIAL	Discharge FIELD	Rating Shift adj.	Rating % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. con.	PZF	REMARKS
			Feet	Sq ft	Fps	Feet	Cfs	Feet				Feet	Hr		°C				
3-4-80		1005				7.6	7.4	-.2											
3-4-80		1043				8.6	8.5	-.1											
3-17-80		1109				11.9	11.8	-.1											
4-2-80		1140				6.6	6.6	0											
4-14-80		1345				18.1	18.0	-.1											
5-5-80		1151				20.9	20.2	-.7											
5-5-80		1312				22.6	22.6	0											
5-13-80		1256				17.1	17.0	-.1											
5-20-80		1113				12.9	16.6	+3.7											
6-3-80		0915				—	11.5												
6-3-80		1100				15.5	15.5	0											
6-12-80		0950				13.5	13.5	0											
6-18-80		0944				17.0	17.0	0											
7-2-80		0940				14.8	14.6	-.2											
7-17-80		0938				16.5	17.5	+1.0											
7-28-80		0955				19.	19.0	0											

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FORM 9-207
(Rev. 11-69)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)

DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 1930643

Discharge measurements of EVACUATION CREEK NR. MOUTH for the year ending Sept 30, 19 80

No.	Date	Made by—	Width	Area	Mean velocity	~~Gage~~ height DIAL	~~Discharge~~ FIELD	Rating: Shift adj.	Rating: % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. con.	pH	REMARKS
			Feet	Sq ft	Fps	Feet	Cfs	Feet				Feet	Hr		°C				
10-2-79		1057				15.5	15.5	0											
10-19-79		1056				12.2	12.0	-.2											
10-26-79		1216				15.5	15.5	0											
11-6-79		1148				8.9	8.9	0											
11-19-79		1045				3.3	3.1	-.2											
12-4-79		1131				1.3	1.0	-.3											
12-4-79		1150				1.4	1.2	-.2											
12-12-79		1210				.9	.5	-.4											
1-2-80		1030				1.4	.5	-.9											
1-2-80		1050				1.6	1.5	-.1											
1-25-80		1034				1.8	2.0	-.2											
2-4-80		1130				1.9	2.0	-.1											
2-4-80		1240				3.4	3.5	+.1											
2-18-80		1010				.7	.4	-.3											
2-19-80		1207				2.5	2.5	0											
2-22-80		1007				2.1	3.8	+1.7											

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09306430
J-2

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location Eureka Flat Ck. nr. Mouth, NE. Watson Computed by BL Checked by

Date		11-06-79				11-19-79				12-4-79		
Time		1100				1100				1200		
Gage height		2.11				2.10				2.11		
Sampling Sta.		Width of flow				Vertical flow				Width of flow		
Temp. & Spec. Cond.		6.0 / 4000	/	/	/	3.1 / 4100	/	/	/	0 / 4100	/	
Remarks		C=.12 / PH=8.0				C=.08 / PH=				C=.07 / PH=		
Weight of sample	Gross	619.3				627.				573.3		
	Tare	360				355				363		
	Net	259.3				272.0				212.3		
Container no.		026				031				101		
Weight of sediment	Gross	36.786				36.896				36.652		
	Tare	36.562				36.798				36.533		
	Net	.224			x 1000	.098				.119		
	D.S. corr.		224 / 259.3									
	Net											
Conc. (ppm)		864				360				560		

Date		12-12-79		1-2-80		1-25-80		2-4-80		3-17-80		
Time		1230		1100		1105		1210		1115		
Gage height		2.13		2.08		2.16		2.15		2.72		
Sampling Sta.		Width of flow		Vertical flow		Vertical flow		Width of flow		Width of flow		
Temp & Spec. Cond.		-.05 / 4100	/	1.5 / 4100	/	2.0 / 3850	/	3.5 / 4150	/	11.8 / 4000	/	
Remarks		C=.06 / PH=8.0		C=.05 / PH=7.0		C=.09 / PH=7.0		C=.07 / PH=7.2		C=.57 / PH=		
Weight of sample	Gross	637		617.8		614.2		626.4		469.1		
	Tare	369		373		365		370		369		
	Net	268.		244.8		249.2		256.4		100.1		
Container no.		029		02		29		53		63		
Weight of sediment	Gross	36.778		36.865		35.666		34.930		37.554		
	Tare	36.716		36.817		35.465		34.833		37.457		
	Net	.062		.048		.201		.097		.097		
	D.S. corr.											
	Net											
Conc. (ppm)		231		121		806		378		969		

S-2

09306420

UNITED STATES DEPARTMENT OF THE INTERIOR

Geological Survey—Water Resources Division

E.D.I

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location EVACUATION CREEK NR. MOUTH Computed by BK Checked by

Date		1-30-80		2-19-80				2-19-80				
Time		1045		1000				1000				
Gage height		2.29		3.23				3.23				
Sampling Sta.		(2.32 cfs) (Qw)		1 # 8.5	20.	27.		9 # 8.5	8.5	20.	27.	
Temp. & Spec. Cond.		.0 /4100	/	0 /650	/	/	/	0 /650	/	/	/	
Remarks		Q=.12 PH=9.2 DO.=6.2		Q=62. cfs.		PH=9.2	D.O.=6.8					
WEIGHT OF SAMPLE	Gross	667.4		622.	584.7	626.		604.5	625.5	612.4		
	Tare	370		367	362	366		351	362	370		
	Net	297.4		256.0	222.7	260.		253.5	263.5	242.4		
Container no.		26		14	52	4.		033	56	021		
VOLUME OF SEDIMENT	Gross	35.475		39.325	39.651	39.453		40.227	39.651	40.649		
	Tare	35.399		35.377	35.749	35.242		36.685	35.070	36.846		
	Net	.076		5.948	3.902	4.211		3.542	4.581	3.803		
	D.S. corr.											
	Net											
Conc. (ppm)		2555		1,542	1752	1619.6	x1637.9	1,397	1,738.5	1,568.9	x1568	

E.D.I

Date		2-22-80				2-22-80						
Time		1200				1200						
Gage height		2.89				2.89						
Sampling Sta.		1 # 2.5	5.5	8.5		2 # 2.5	5.5	8.5				
Temp. & Spec. Cond.		3.5 /1700	/	/	/	3.5 /1700	/	/	/	/	/	
Remarks		Q=6.0 cfs	PH=8.0	DO.=14.5								
WEIGHT OF SAMPLE	Gross	695.2	679.9	692.8		697.1	669.1	688.5				
	Tare	361	368	369		364	363	370				
	Net	334.2	311.9	323.8		333.1	306.1	318.5				
Container no.		014	011	33		22	013	40				
WEIGHT OF SEDIMENT	Gross	38.154	38.415	37.195		37.328	38.205	37.095				
	Tare	36.650	36.982	35.767		35.812	36.747	35.651				
	Net	1.504	1.433	1.428		1.516	1.458	1.444				
	D.S. corr.											
	Net											
Conc. (ppm)		450	459.4	441	x450	455	476.2	453	x461.4			

EDE

5-2
09306430

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location EVACUATION CREEK NR. MOUTH Computed by BH Checked by

Date		3-4-80		3-4-80		3-4-80		4-2-80	4-2-80	4-2-80		
Time		1120		1120		1120		1300				
Gage height		2.72		2.72		2.72		2.78				
Sampling Sta.		1# 1.0		2# 2.0		3# 3.0		1# .90	2# 2.1	3# 3.3		
Temp. & Spec. Cond.		8.5/4000	/	8.5/4000	/	8.5/4000	/	6.6/4500	/	/	/	
Remarks		Q=.45 cfs	PH=8.8		flow clear			Q=1.74	PH=7.2	D.O.=7.2		
WEIGHT OF SAMPLE	Cross	641		664.8		692.8		646.3	671	664.3		
	Tare	361		364		364		370	372	367		
	Net	280		300.8		328.8		276.3	299.0	297.3		
Container no.		10		014		64		42	60	017		
WEIGHT OF SEDIMENT	Gross	35.540		36.569		37.479		35.695	36.372	37.170		
	Tare	35.417		36.530		37.416		35.132	35.787	36.582		
	Net	.123		.039		.063		.563	.585	.588		
	D.S. corr.											
	Net											
Conc. (ppm)		439.3		129.7		191.6	x̄ 253.5	2,037.6	1,956.5	1,977.8	x̄ 1990.6	

Date		5-5-80				5-5-80						
Time		1345				1345						
Gage height		2.90				2.90						
Sampling Sta.		1# 2.2	3.7	6.0		2# 2.2	3.7	6.0				
Temp. & Spec. Cond.		20.2/3500	/	/	/	20.2/3500	/	/	/	/	/	
Remarks		Q=4.3 cfs	D.O.=8.0									
WEIGHT OF SAMPLE	Cross	711.5	632.8	633.2		734.6	669.4	695.8				
	Tare	369	366	356		368	372	370				
	Net	342.5	266.8	277.2		366.6	297.4	325.8				
Container no.		58	47	032		03	07	017				
WEIGHT OF SEDIMENT	Gross	36.417	35.627	37.944		37.783	37.642	37.960				
	Tare	35.429	34.843	37.098		36.720	36.779	36.995				
	Net	.978	.784	.846		1.063	.863	.965				
	D.S. corr.											
	Net	2,755.5	2,932.5	3051.9	x̄ 2946.6	2991.6	2901.8	2961.9	x̄ 1963.6			x̄ 2456.1

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09306430

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location EVACUATION CREEK NEAR MOUTH Computed by BH Checked by

Date		4-14-80										
Time		1430	—	—								
Gage height		2.78	—	—								
Sampling Sta.		1# .90	2# 1.8	3# 3.0								
Temp. & Spec. Cond.		18.0 / 4300	/	/	/	/	/	/	/	/	/	/
Remarks		Q = 1.0	PH = 8.8									
WEIGHT OF SAMPLE	Gross	680.3	685.0	636.6								
	Tare	362	372	373								
	Net	318.3	313.0	263.6								
Container no.		019	45	32								
WEIGHT OF SEDIMENT	Gross	36.976	35.424	37.612								
	Tare	36.748	35.234	37.426								
	Net	.228	.190	.186								
	D.S. corr.											
	Net											
Conc. (ppm)		716.3	607	705.6	x 676.3							

E.D.I

Date		5-13-80				5-13-80						
Time		1245				1245						
Gage height		2.90				2.90						
Sampling Sta.		1# 3.4	6.8	8.6		2# 3.4	6.8	8.6				
Temp. & Spec. Cond.		15.5 / 2300	/	/	/	15.5 / 2300	/	/	/	/	/	/
Remarks		Q = 16.0 cfs	PH = 8.5		D.O. = 7.8							
WEIGHT OF SAMPLE	Gross	635.9	615.6	661.6		602.0	597.7	684.0				
	Tare	369	362	365		368	371	364				
	Net	266.9	253.6	296.6		234.0	226.7	320.0				
Container no.		030	020	34		026	02	035				
WEIGHT OF SEDIMENT	Gross	39.904	39.429	38.787		39.355	39.883	40.107				
	Tare	36.848	36.464	35.415		36.645	36.828	36.520				
	Net	3.056	2.965	3.372		2.710	3.055	3.587				
	D.S. corr.											
	Net	1144.9	1167	1136.9	x 1150.3	1158	1347.6	1120.9	x 1208.8			x 1179.6
Conc. (ppm)												

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09306430

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division
SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location EVACUATION CREEK NEAR MEEKER Computed by BH Checked by

Date		5-20-80				5-20-80						
Time		1200				1200						
Gage height		2.94				2.94						
Sampling Sta.		1# 2.5	6.0	8.9		2# 2.5	6.0	8.9				
Temp. & Spec. Cond.		16.6/2700	/	/	/	16.6/2700	/	/	/	/	/	
Remarks		Q = 9.0 cfs		PH = 8.6								
WEIGHT OF SAMPLE	Gross	665.0	677.8	697.3		716.2	615.6	697.8				
	Tare	370	364	367		368	370	359				
	Net	295.0	264.8	331.3		348.2	245.6	338.8				
Container no.		57	38	031		53	39	46				
WEIGHT OF SEDIMENT	Gross	36.954	36.801	38.213		36.219	36.508	37.102				
	Tare	35.752	35.725	36.860		34.846	35.479	35.733				
	Net	1.202	1.076	1.353		1.373	1.029	1.369				
	D.S. corr.											
	Net											
Conc. (ppm)		407.5	406.3	408.4	$\bar{x}$ 407.4	394.3	419	404	$\bar{x}$ 405.8			$\bar{x}$ 406.6

Date		6-3-80				6-3-80						
Time		1100				1100						
Gage height		2.90				2.90						
Sampling Sta.		1# 2.3	4.7	9.2		2# 2.3	4.7	9.2				
Temp & Spec. Cond.		11.5/3200	/	/	/	11.5/3200	/	/	/	/	/	
Remarks		Q = 7.0 cfs		PH = 8.3	D.O. = 8.5							
WEIGHT OF SAMPLE	Gross	646.5	682.1	636.1		710.0	648.7	627.6				
	Tare	351	361	368		371	368	365				
	Net	295.5	321.1	268.1		339.0	280.7	262.6				
Container no.		66	9	029		13	101	24				
WEIGHT OF SEDIMENT	Gross	37.508	36.231	37.161		38.262	37.083	35.828				
	Tare	36.962	35.616	36.582		37.545	36.546	35.320				
	Net	.546	.615	.579		.717	.537	.508				
	D.S. corr.											
	Net											
Conc. (ppm)		1846	1625	2159.1	$\bar{x}$ 1993.5	2115	1913	1934.5	$\bar{x}$ 1987.5		$\bar{x}$	1940.5

E.D.I

S-2
09306430

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location: FUNCTIONAL CREEK NEAR, MAINE

Computed by: DH Checked by:

Date		6-12-80										
Time		0950										
Gage height		2.75										
Sampling Sta.		1 @ 1.3	2 @ 2.8	3 @ 4.0								
Temp. & Spec. Cond.		13.0/53.00	/	/	/	/	/	/	/	/	/	/
Remarks		Q = 1.7 cfs	Dif = 7.3		D.O. = 7.5							
WEIGHT OF SAMPLE	Gross	649.8	632.9	605.5								
	Tare	371	369	370								
	Net	278.8	263.9	235.5								
Container no.		04	8	65								
WEIGHT OF SEDIMENT	Gross	36.832	35.308	37.618								
	Tare	36.748	35.198	37.529								
	Net	.084	.110	.079								
	D.S. corr.											
	Net											
Conc. (ppm)		301.3	416.8	377.9	x 36.5.3							

Date												
Time												
Gage height												
Sampling Sta.												
Temp & Spec. Cond.		/	/	/	/	/	/	/	/	/	/	/
Remarks												
WEIGHT OF SAMPLE	Gross											
	Tare											
	Net											
Container no.												
WEIGHT OF SEDIMENT	Gross											
	Tare											
	Net											
	D.S. corr.											
	Net											
Conc. (ppm)												

09306420
S-2

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location EXECUTION CREEK NR. MOUTH. Computed by BH Checked by

Date		6-18-80			7-02-80					7-17-80		
Time		1030			0840					1030		
Gage height		2.73			2.70.					2.78		
Sampling Sta.		Center of Flow			Center of Flow					Center of Flow		
Temp. & Spec. Cond.		17.0/3700	/	/	14.6/3800	/	/	/	/	17.7/3700	/	/
Remarks		Q=1.47/PH=			Q=.60/PH=8.3					Q=.73/PH=		
WEIGHT OF SAMPLE	Gross	657.2			682.6					591.		
	Tare	361			362					360		
	Net	291.2			320.6					231.0		
Container no.		38			57					64		
WEIGHT OF SEDIMENT	Gross	35.726			35.471					37.449		
	Tare	35.722			35.447					37.413		
	Net	.004			.024					.036		
	D.S. corr.											
	Net											
Conc. (ppm)		13.7			74.8					155.8 (DIP)		

Date		7-28-80			8-5-80					8-15-80		
Time		1030			1030					1000		
Gage height		2.69			2.68					2.66		
Sampling Sta.		Center of Flow			Center of Flow					Center of Flow		
Temp. & Spec. Cond.		19.0/3800	/	/	18.8/3900	/	/	/	/	16.5/3900	/	/
Remarks		Q=.60/PH=8.3			est. Q=.22					Q=.184/PH=[redacted]	DH=8.3 Q=.15	
WEIGHT OF SAMPLE	Gross	668.0			686.0					661.5		
	Tare	365			368					366		
	Net	303.0			318.					295.5		
Container no.		10			037					017		
WEIGHT OF SEDIMENT	Gross	35.491			37.119					37.031		
	Tare	35.423			37.107					37.008		
	Net	.068			.012					.023		
	D.S. corr.											
	Net	224.4			39.5							
Conc. (ppm)										77.8		

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division
SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location EUREKA CREEK NR. SMITH, NEV. / JUNEAU Computed by RH Checked by

Date		8-27-80				8-27-80						
Time		1030				1030						
Gage height		2.89				2.89						
Sampling Sta.		1# 4.0	7.0	9.5		2# 4.0	7.0	9.5				
Temp. & Spec. Cond.		14.0/1450	/	/	/	14.0/1450	/	/	/	/	/	/
Remarks		Q = 7.5 cfs		PH = 8.0								
WEIGHT OF SAMPLE	Gross	742.	685.2	731.		692.	641.2	688.1				
	Tare	376	367	358.		367	362	371				
	Net	366.	318.2	373.0		325.	279.2	317.1				
Container no.		41	40	9		10.	11	13				
WEIGHT OF SEDIMENT	Gross	69.676	71.881	71.552		66.824	65.692	69.140				
	Tare	50.583	55.495	52.436		50.071	51.117	52.810				
	Net	19.093	16.386	19.116		16.753	14.575	16.330				
	D.S. corr.											
	Net											
Conc. (ppm)		52,166.6	51495.9	51249	$\bar{x}$ 51,637	51,547.6	52,202.7	51,497.9	$\bar{x}$ 1,749.4			51,693.2

S-2 EUREKA CR. NR. SMITH

Date		9-12-80				9-12-80				9-29-80		
Time		1035				1035				1005		
Gage height		2.65				2.65				2.60		
Sampling Sta.		1# 1.5	3.3	4.8		2# 1.5	3.3	4.8		center of flow		
Temp & Spec. Cond.		12.9/3900	/	/	/	12.9/3900	/	/	/	8.4/4200	/	
Remarks		Q = .58 cfs	PH = 8.0							Q = .22 / PH = 8.4 SC = 1200		
WEIGHT OF SAMPLE	Gross	607.1	661.5	692		646.9	667.2	720.		656.2		
	Tare	361	368	370		366	371	363		369		
	Net	246.1	293.5	322.0		280.9	296.2	357		287.2		
Container no.		60	023	46		26	013	47		014		
WEIGHT OF SEDIMENT	Gross	37.231	38.169	37.554		37.074	38.431	36.885		36.555		
	Tare	35.789	36.483	35.727		35.403	36.744	34.926		36.529		
	Net	1.442	1.686	1.827		1.671	1.687	1.959		.026		
	D.S. corr.											
	Net	5,859.4	5,744.4	51,731	5759.	5,948.7	5,695.5	5,487.4	5710.5	90.		
Conc. (ppm)								$\bar{x}$	5734.4			

Sta. 09306610 ta. 09306625 Sta. 09306700

STATION 09306610

TABLE

STATION 09306610
SOUTHAM CANYON AT MOUTH, NEAR WATSON, UTAH
Mean Daily Discharge (cfs)
October 1979 - September 1980

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1					.00						.00	.00
2					.00						.00	.00
3					.00						.00	.00
4					.00						.00	.00
5					.00						.00	.00
6					.00						.00	.00
7					.00						.00	.50
8					.00						.00	.00
9					.00						.00	.00
10					.00						.00	1.41
11					.00						.00	.00
12					.00						.00	.00
13					.00						.00	.00
14					.00						.00	.00
15					.00						.00	.00
16					.00						.00	.00
17					.10						.00	.00
18					20						.00	.00
19					15						.00	.00
20					7.6						.00	.00
21					.13						.00	.00
22					.00						.00	.00
23					.00						.00	.00
24					.00						.00	.00
25					.00						8.8	.00
26					.00						.00	.00
27					.00						.00	.00
28					.00						.00	.00
29					.00						.00	.00
30											.00	.00
31											.00	
Total	.00	.00	..00	.00	42.8	.00	.00	.00	.00	.00	8.8	1.91
Mean	.000	.000	.000	.000	1.48	.000	.000	.000	.000	.000	.284	.064
Max	.00	.00	.00	.00	20.0	.00	.00	.00	.00	.00	8.8	1.41
Min	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Ac-Ft	.00	.00	.00	.00	84.9	.00	.00	.00	.00	.00	17.5	3.79

Water Year 1980 Total 53.51 Mean .15 Max 20.0 Min .00 Ac-Ft 106

FIELDS, LIN AND SCOTT, INCORPORATED
Professional Engineers
1075 VINE STREET • SALT LAKE CITY, UTAH 84121 • (801) 266-1257

December 13, 1980

Mr. Bill Hale
% White River Shale Project
1315 West Highway 40
Vernal, Utah

Dear Bill:

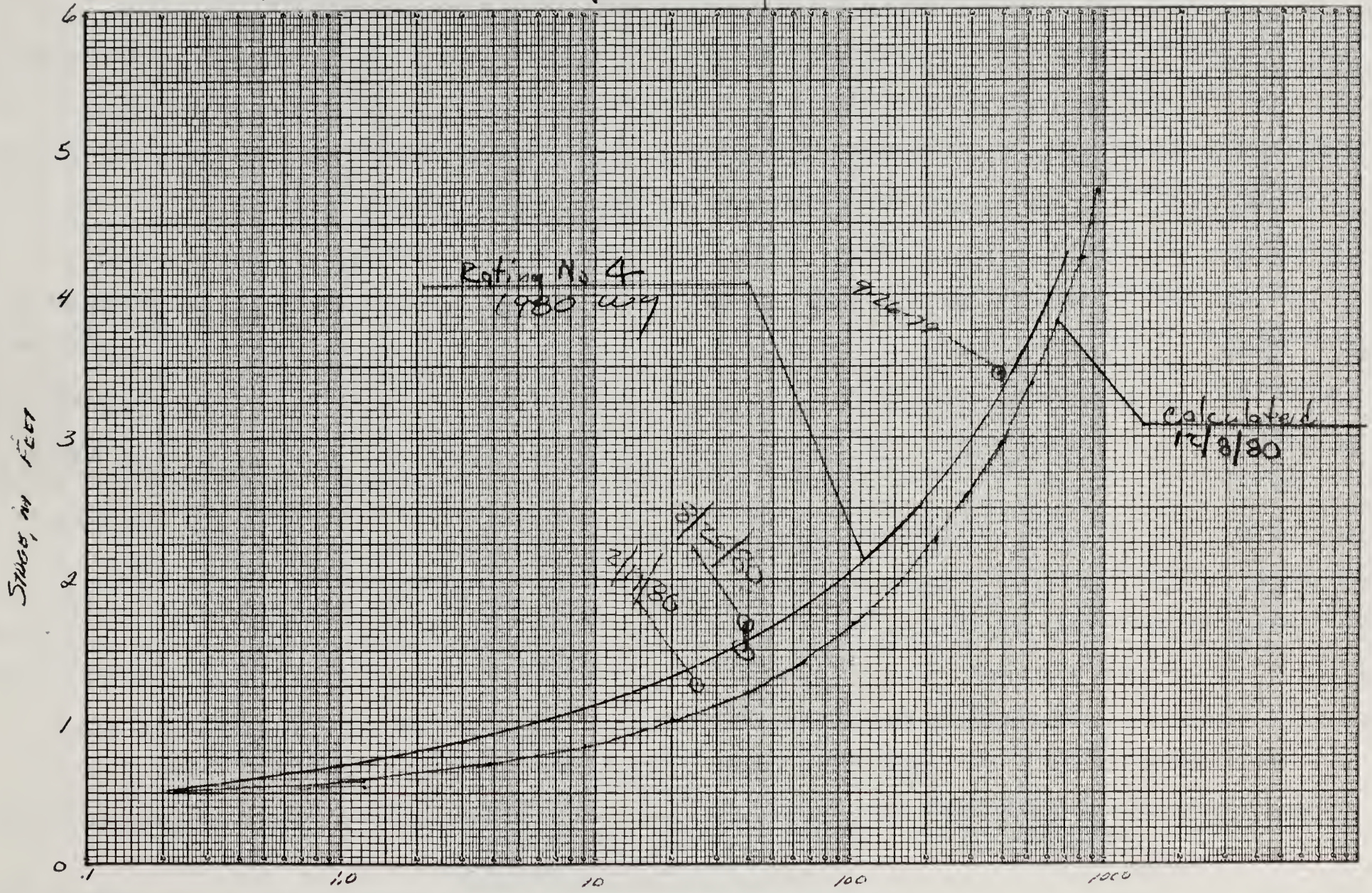
Enclosed is the print of the flow events on Southam Canyon for August 24 and 25. I calculate the daily discharges as 15 and 0.08 cfs.

Sincerely,

Fred K. Fields

NO. 31,227. 20 DIVISIONS PER INCH (120 DIVISIONS) BY FIVE CYCLES RATIO RULING. codex GRAPH PAPER® IN STOCK DIRECT FROM CODEX BOOK CO. INC. NORWOOD, MASS. 02062 PRINTED IN U. S. A.

Calculated from a slope convergence measurement



Distance in ft

FORM 9-207
(Rev. 11-69)

S-13

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)
DISCHARGE MEASUREMENT SUMMARY SHEET

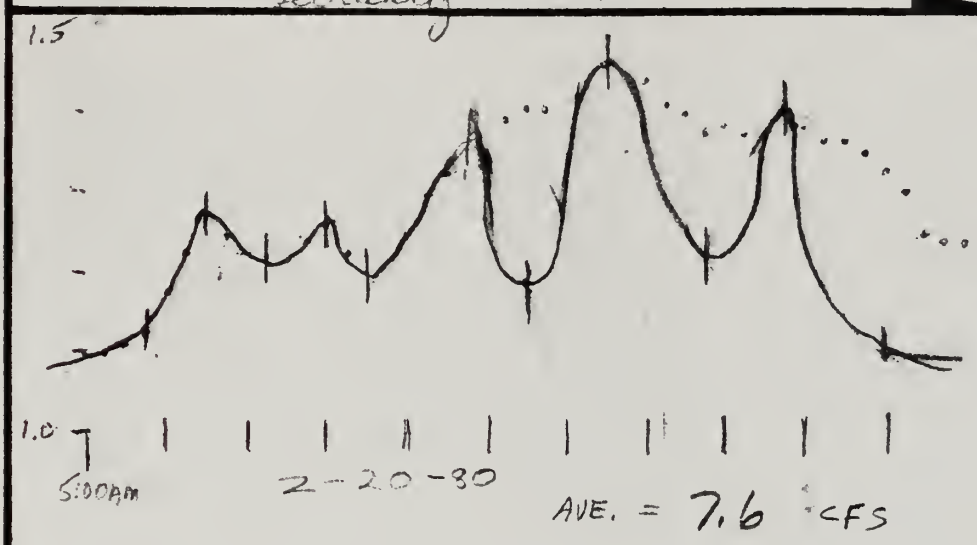
Station No 09306610

Discharge measurements of SOUTHAM CYN. NEAR MOUTH NR. WATSON during the year ending Sept 30, 1980

No.	Date	Made by—	Width	Area	Mean velocity	Gage height	Discharge	Rating: Shift adj.	Rating: % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. con.	PZF	REMARKS
			Feet	Sq ft	Fps	Feet	Cfs	Feet				Feet	Hr		°C				
24	Feb 19	B. Hale	9.5	4.0	6.25	1.23	25.0			.6	1B	+.12	.50	G	0 / 6.0	1300			small amount of debris in channel HWM=1.4'
25	Feb 21	"	Visit	—	cleaned weel & Reober					I.S.	HWM = .73								No flow! ice in well
26	Mar 03	"	Visit	—	cleaned weel & Reober					I.S.	HWM = .88								
27	Apr 14	"	Visit	—															no reading of flow
28	May 02	"	Visit	—															No flow!
29	June 01	"	Visit	—															No flow!
30	July 05	"	Visit	—															No flow!
31	Aug 25	"	22.5	7.0	5.51	1.96	39.3			.6	2B	-.07	.75	F	18.5 / 25.0	1530			mean'd up-stream 1 mi collected W.Q.
32	Aug 28	"	25.5	—	Cross section - after flow event														
33	Sept 08	"	22.3	—	Cross section - after flow event														
34	Sept 11	"	22.5	—	Cross section - after flow event.														

Copied by ..... Computed by ..... Checked by Graves

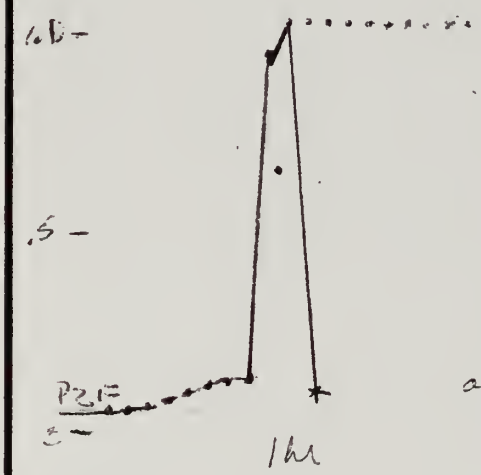
SUBJECT			SECTION
PROJECT			PAGE OF
LOCATION	Southern Campus February		JOB NO
CLIENT			BY



AVE. = 7.6 CFS

T	GH	Q	ΔT	
0				
.75	1.12	10	.75	7.5
1.50	1.27	17	.75	12.75
2.25	1.22	16	.25	12
3.00	1.26	17	.6	10.2
3.50	1.20	14	1.12	15.68
4.75	1.39	25	1.0	25.0
5.50	1.19	14	.9	12.6
6.50	1.46	30	1.12	33.6
7.75	1.23	16	1.12	17.92
8.75	1.40	25	1.12	28
10.00	1.11	10	.62	6.2

181



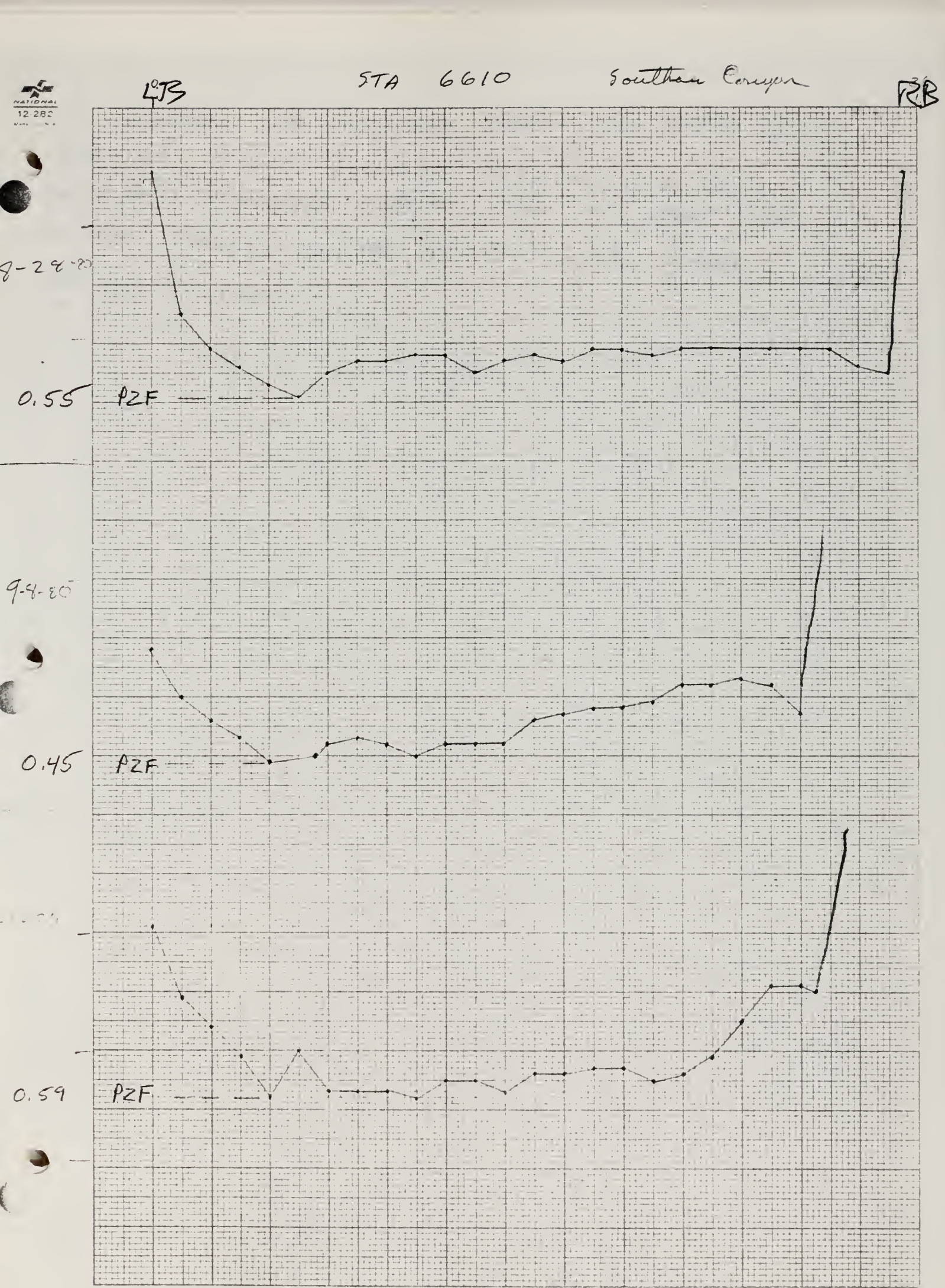
ave = .13 CFS

2-21-80

	GH	
1hr	.65	0.7
		.03

T					
0	.13	.55		.1	0.03
.25	.96	1.00	.3	5.0	1.25
.50	1.03	.56	1.5	7.0	1.75
.75	.10		.3	.1	0.03
1.0					

3.03

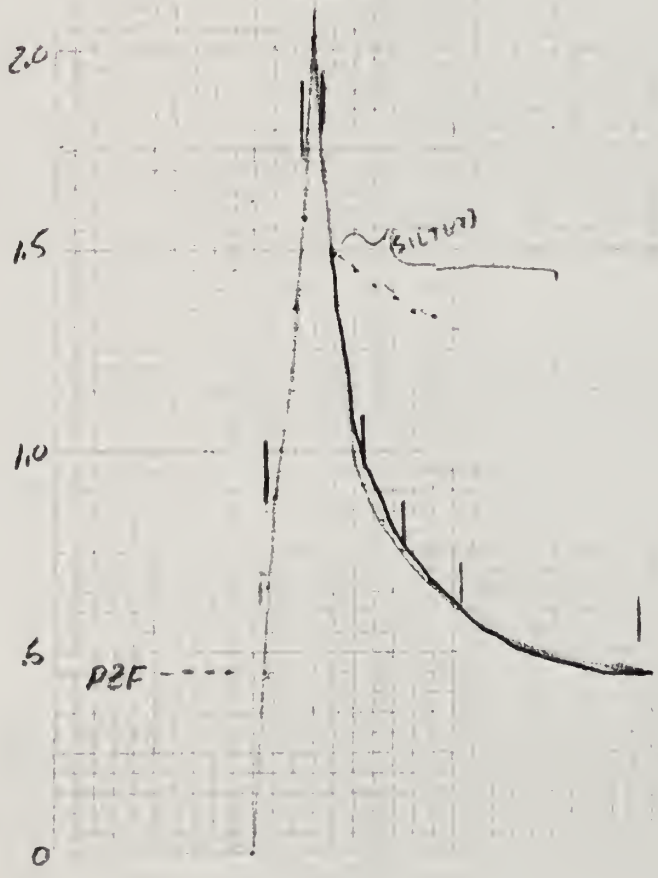

STA 6610
Southern Canyon
LJB
RJB
8-28-80
0.55
PZF
9-4-80
0.45
PZF
0.59
PZF

In comparing the X-sections before and after the flood of 9-26-79 (4-3-79 & 9-28-79) the bed level was lowered 0.30 ft at the gage. The bed then lowered another 0.11 ft, approx, during 1980 water year

Sept 10, 1979

MAX INST FLOW =

15-05-2.04'



	hr		ch		sh		Q	hr×Q cfs/hr
.5	@	1.00	+ 0	+ 0	=	20	10
.25	@	1.85	+ 0	+ 0	=	130	32.5
.5	@	1.35	+ 0	+ 0	=	58	29
.5	@	.82	+ 0	+ 0	=	11	5.5
.75	@	.67	+ 0	+ 0	=	3.9	2.93
2.25	@	.51	+ 0	+ 0	=	.32	.72

24 | 80.65

3.4

		Q	
.5	×	6	=
.25	×	70	
.5	×	22	
.5	×	2.4	
.75	×	.9	
2.25	×	.22	

24 | 33.87

1.41

Form 9-191
(July 1952)
Cross-section properties

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

File #32

Southam Canyon FLOOD OF 8-28-80 CS

SECTION --

STA.	DIST.	W. S. ELEV.	ELEV.	DEPTH	MEAN DEPTH	AREA		W. P.		
L.B. 0	—	2.46	2.46	0	—	—				
1	1		1.24	1.22	.61	.61		1.6		
2	1		.96	1.50	1.36	1.36		1.0		
3	1		.81	1.65	1.57	1.57		1.0		
4	1		.63	1.83	1.74	1.74		1.0		
5	1		.55	1.91	1.87	1.87		1.0		
6	1		.76	1.70	1.80	1.80		1.0		
7	1		.93	1.63	1.66	1.66		1.0		
8	1		.87	1.59	1.61	1.61		1.0		
9	1		.91	1.55	1.57	1.57		1.0		
10	1		.91	1.55	1.55	1.55		1.0		
11	1		.75	1.71	1.63	1.63		1.0		
12	1		.84	1.62	1.67	1.67		1.0		
13	1		.89	1.59	1.60	1.60		1.0		
14	1		.87	1.59	1.55	1.58		1.0		
15	1		.95	1.51	1.55	1.55		1.0		
16	1		.96	1.50	1.51	1.51		1.0		$R = \frac{39.1}{27.1} = 1.44$
17	1		.91	1.55	1.53	1.53		1.0		
18	1		.94	1.52	1.53	1.53		1.0		
19	1		.95	1.51	1.51	1.51		1.0		
20	1		.97	1.49	1.50	1.50		1.0		
21	1		.94	1.52	1.51	1.51		1.0		
22	1		.93	1.53	1.52	1.52		1.0		
23	1		.96	1.50	1.52	1.52		1.0		
24	1		.91	1.65	1.57	1.57		1.0		
25	1	2.46	.76	1.70	1.68	1.68		1.0		
25.5	.5	2.46	2.46	0	.70	.35		1.5		
25.5	25.5					39.1		27.1		

Sheet No. ----- of ----- sheets. Prepared by M. Dennison Date 5-11-81 Checked by ----- Date -----

P-121 (July 1952) Cross-section properties

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

File #33

Souther Canyon 6610 FLOOD OF 9/8/80

SECTION.–

STA.	DIST.	W. S. ELEV.	ELEV.	DEPTH	MEAN DEPTH	AREA		W. P.		
L.B. 0	—	1.40	1.40	—	—	—				
1	1		1.01	.39	.20	.20		1.1		
2	1		.80	.60	.49	.49		1.0		
3	1		.67	.73	.67	.67		1.0		
4	1		.45	.95	.84	.84		1.0		
5.6	1.6		.50	.90	.92	1.47		1.0		
6.0	.4		.60	.80	.85	.34		1.0		
7.0	1		.65	.75	.78	.78		1.0		
8	1		.60	.80	.77	.77		1.0		
9	1		.49	.91	.85	.85		1.0		
10	1		.60	.80	.86	.86		1.0		$R = \frac{13.29}{22.2} = 0.60$
11	1		.62	.78	.79	.79		1.0		
12	1		.59	.81	.79	.79		1.0		
13	1		.80	.60	.70	.70		1.0		
14	1		.83	.57	.59	.59		1.0		
15	1		.90	.50	.53	.53		1.0		
16	1		.92	.48	.49	.49		1.0		
17	1		.97	.43	.46	.46		1.0		
18	1		1.10	.30	.36	.36		1.0		
19	1		1.10	.30	.30	.30		1.0		
20	1		1.15	.25	.22	.22		1.0		
21	1		1.09	.31	.28	.28		1.0		
22	1		.97	.53	.42	.42		1.0		
22.3	.3	1.40	1.40	0	.26	.08		1.1		
22.3	22.3					13.29		22.2		

Sheet No. ..... of ..... sheets. Prepared by M. Pearce Date 5-11-81 Checked by ..... Date .....

Form 9-191
(July 1952)
Cross-section properties

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

File #34

Southern Canyon 6610 FLOOD OF 9-11-81

SECTION.—

STA.	DIST.	W. S. ELEV.	ELEV.	DEPTH	MEAN DEPTH	AREA		W. P.		
L.B.		2,04	2,04	0	—	—				
1	1		1,44	,60	,30	,30		1,2		
2	1		1,22	,82	,71	,71		1,0		
3	1		,93	1,11	,97	,97		1,0		
4	1		,62	1,42	1,25	1,25		1,0		
5	1		,98	1,46	1,44	1,44		1,0		
6	1		,64	1,40	1,43	1,43		1,0		
7	1		,63	1,41	1,41	1,41		1,0		
8	1		,64	1,40	1,40	1,40		1,0		
9	1		,59	1,45	1,42	1,42		1,0		
10	1		,74	1,30	1,48	1,48		1,0		
11	1		,75	1,29	1,29	1,29		1,0		
12	1		,64	1,40	1,34	1,34		1,0		
13	1		,74	1,25	1,33	1,33		1,0		
14	1		,78	1,26	1,25	1,25		1,0		
15	1		,85	1,19	1,23	1,23		1,0		
16	1		,84	1,20	1,19	1,19		1,0		
17	1		,77	1,27	1,24	1,24		1,0		
18	1		,79	1,25	1,26	1,26		1,0		
19	1		,94	1,10	1,17	1,17		1,0		
20	1		1,24	,80	,95	,95		1,0		
21	1		1,54	,50	,65	,65		1,0		
22	1		1,55	,49	,50	,50		1,0		
22,5	,5	2,04	1,52	,52	,50	,25		1,0		
22,5	22,5					25,46		23,2		

$R = \frac{25,46}{23,2} = 1,10$

Sheet No. ..... of ..... sheets. Prepared by ..... Date ..... Checked by ..... Date .....

STATION	ROD READING	ELEVATION	N VALUE
0	0.00	6.33	0.030
1	4.10	2.23	0.030
2	5.50	0.83	0.030
3	5.85	0.48	0.030
5	5.51	0.82	0.030
7	5.50	0.83	0.030
9	5.82	0.51	0.030
11	5.80	0.53	0.030
13	5.91	0.42	0.030
15	5.90	0.43	0.030
17	5.80	0.53	0.030
19	5.31	1.02	0.030
21	4.40	1.93	0.030
25	1.75	4.58	0.030
0	0.00	6.33	0.030

Stream Measure

In the future: Always enter stream info "n" is 0.032.

SOUTHAM CYN. NR. MOUTH 12/9/80

SLOPE AT THIS SITE IS 100 PERCENT

n=.028

ELEVATION	AREA	K	CONVEYANNCE	DISCHARGE	VELC
0.45	0.09	0	0	0.21	2.
0.50	0.31	2	2	1.98	6.
0.59	1.02	11	11	10.66	10.
0.70	2.23	38	35	35.29	15.
0.84	4.12	86	80	79.95	19.
1.01	6.93	198	185	184.86	26.
1.21	10.36		352	352.08	33.
1.43	14.42		594	593.63	41.
1.69	19.15		924	924.36	48.
1.97	24.64		1361	1361.48	55.
2.28	30.90		1928	1927.77	62.
2.62	37.97	2226	2637	2637.34	69.
2.98	45.86		3504	3504.12	76.
3.38	54.65		4547	4547.17	83.
3.80	64.39		5787	5787.04	89.
4.25	75.16		7246	7246.03	96.
4.73	86.85		8561	8561.43	98.
5.23	96.61		8788	8787.71	90.
5.77	102.95		8581	8581.26	83.
6.33	105.21		7941	7940.89	75.

XS #5 1.453%

SLOPE = 1.453%

Adj Conveyance to .032

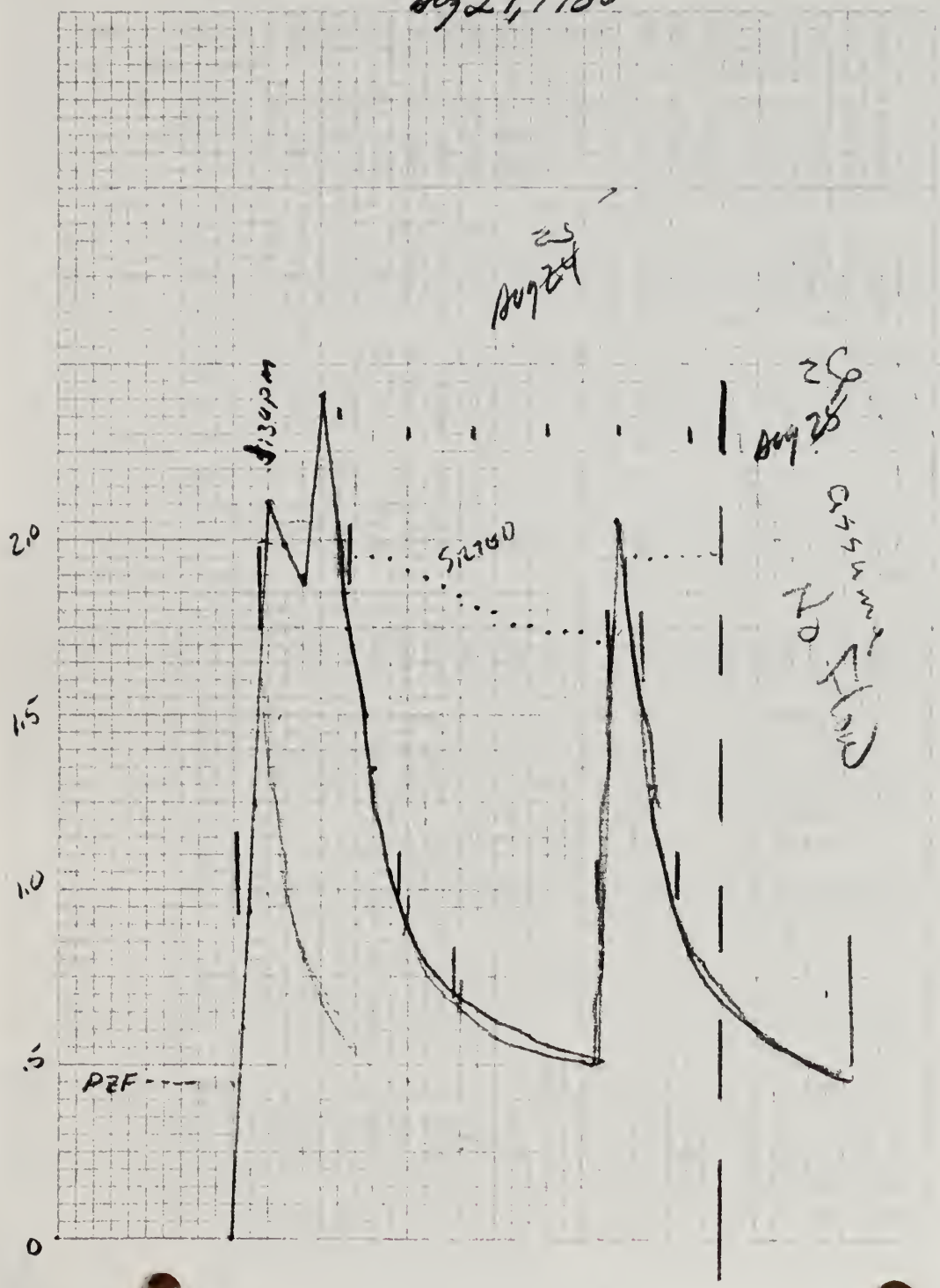
S½ = .12054

K x .93 x .12054 = Q

VELOCITY		Q
1.36	.933	.00
1.36		.22
1.46		1.24
1.82		3.94
2.42		9.00
3.66	.933	20.80
4.98		39.60
6.18		66.80
7.26		103.90
8.26		153.20
9.38		217.
10.47	.933	297.
11.41		394.
12.21		511.
12.87		651.
13.41		815.
13.58	.933	963.
13.96		
14.35		
14.48		

FORM 1401 PRINTED BY THE STANDARD REGISTER COMPANY

Aug 24, 1980



Aug 24

.25 hr @ 1.25

			Q	
0		.106	—	—
.50	.50	2.11	110	
1.00	.50	1.90	80	
1.25	.25	2.41	165	
1.50	.25	2.04	100	
2.50	1.00	.90	6	
3.25	.75	.70	1.1	
5.25	2.00	.50	.20	
5.50	.25	2.10	110	
5.75	.25	1.70	54	
6.25	.50	.90	3.5	
7.00	.75	.60	.30	

.9 212

9.8

CONDUCTANCE 10X
TABLE 1 11/25/80
OHM

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
10.0	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
10.1	100.0	110.0	120.0	130.0	140.0	150.0	160.0	170.0	180.0	190.0
10.2	200.0	210.0	220.0	230.0	240.0	250.0	260.0	270.0	280.0	290.0
10.3	300.0	310.0	320.0	330.0	340.0	350.0	360.0	370.0	380.0	390.0
10.4	400.0	410.0	420.0	430.0	440.0	450.0	460.0	470.0	480.0	490.0
10.5	500.0	510.0	520.0	530.0	540.0	550.0	560.0	570.0	580.0	590.0
10.6	600.0	610.0	620.0	630.0	640.0	650.0	660.0	670.0	680.0	690.0
10.7	700.0	710.0	720.0	730.0	740.0	750.0	760.0	770.0	780.0	790.0
10.8	800.0	810.0	820.0	830.0	840.0	850.0	860.0	870.0	880.0	890.0
10.9	900.0	910.0	920.0	930.0	940.0	950.0	960.0	970.0	980.0	990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
11.0	1000.0	1010.0	1020.0	1030.0	1040.0	1050.0	1060.0	1070.0	1080.0	1090.0
11.1	1100.0	1110.0	1120.0	1130.0	1140.0	1150.0	1160.0	1170.0	1180.0	1190.0
11.2	1200.0	1210.0	1220.0	1230.0	1240.0	1250.0	1260.0	1270.0	1280.0	1290.0
11.3	1300.0	1310.0	1320.0	1330.0	1340.0	1350.0	1360.0	1370.0	1380.0	1390.0
11.4	1400.0	1410.0	1420.0	1430.0	1440.0	1450.0	1460.0	1470.0	1480.0	1490.0
11.5	1500.0	1510.0	1520.0	1530.0	1540.0	1550.0	1560.0	1570.0	1580.0	1590.0
11.6	1600.0	1610.0	1620.0	1630.0	1640.0	1650.0	1660.0	1670.0	1680.0	1690.0
11.7	1700.0	1710.0	1720.0	1730.0	1740.0	1750.0	1760.0	1770.0	1780.0	1790.0
11.8	1800.0	1810.0	1820.0	1830.0	1840.0	1850.0	1860.0	1870.0	1880.0	1890.0
11.9	1900.0	1910.0	1920.0	1930.0	1940.0	1950.0	1960.0	1970.0	1980.0	1990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
12.0	2000.0	2010.0	2020.0	2030.0	2040.0	2050.0	2060.0	2070.0	2080.0	2090.0
12.1	2100.0	2110.0	2120.0	2130.0	2140.0	2150.0	2160.0	2170.0	2180.0	2190.0
12.2	2200.0	2210.0	2220.0	2230.0	2240.0	2250.0	2260.0	2270.0	2280.0	2290.0
12.3	2300.0	2310.0	2320.0	2330.0	2340.0	2350.0	2360.0	2370.0	2380.0	2390.0
12.4	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0
12.5	2500.0	2510.0	2520.0	2530.0	2540.0	2550.0	2560.0	2570.0	2580.0	2590.0
12.6	2600.0	2610.0	2620.0	2630.0	2640.0	2650.0	2660.0	2670.0	2680.0	2690.0
12.7	2700.0	2710.0	2720.0	2730.0	2740.0	2750.0	2760.0	2770.0	2780.0	2790.0
12.8	2800.0	2810.0	2820.0	2830.0	2840.0	2850.0	2860.0	2870.0	2880.0	2890.0
12.9	2900.0	2910.0	2920.0	2930.0	2940.0	2950.0	2960.0	2970.0	2980.0	2990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
13.0	3000.0	3010.0	3020.0	3030.0	3040.0	3050.0	3060.0	3070.0	3080.0	3090.0
13.1	3100.0	3110.0	3120.0	3130.0	3140.0	3150.0	3160.0	3170.0	3180.0	3190.0
13.2	3200.0	3210.0	3220.0	3230.0	3240.0	3250.0	3260.0	3270.0	3280.0	3290.0
13.3	3300.0	3310.0	3320.0	3330.0	3340.0	3350.0	3360.0	3370.0	3380.0	3390.0
13.4	3400.0	3410.0	3420.0	3430.0	3440.0	3450.0	3460.0	3470.0	3480.0	3490.0
13.5	3500.0	3510.0	3520.0	3530.0	3540.0	3550.0	3560.0	3570.0	3580.0	3590.0
13.6	3600.0	3610.0	3620.0	3630.0	3640.0	3650.0	3660.0	3670.0	3680.0	3690.0
13.7	3700.0	3710.0	3720.0	3730.0	3740.0	3750.0	3760.0	3770.0	3780.0	3790.0
13.8	3800.0	3810.0	3820.0	3830.0	3840.0	3850.0	3860.0	3870.0	3880.0	3890.0
13.9	3900.0	3910.0	3920.0	3930.0	3940.0	3950.0	3960.0	3970.0	3980.0	3990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
14.0	4000.0	4010.0	4020.0	4030.0	4040.0	4050.0	4060.0	4070.0	4080.0	4090.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

14.1	4100.0	4110.0	4120.0	4130.0	4140.0	4150.0	4160.0	4170.0	4180.0	4190.0
14.2	4200.0	4210.0	4220.0	4230.0	4240.0	4250.0	4260.0	4270.0	4280.0	4290.0
14.3	4300.0	4310.0	4320.0	4330.0	4340.0	4350.0	4360.0	4370.0	4380.0	4390.0
14.4	4400.0	4410.0	4420.0	4430.0	4440.0	4450.0	4460.0	4470.0	4480.0	4490.0
14.5	4500.0	4510.0	4520.0	4530.0	4540.0	4550.0	4560.0	4570.0	4580.0	4590.0
14.6	4600.0	4610.0	4620.0	4630.0	4640.0	4650.0	4660.0	4670.0	4680.0	4690.0
14.7	4700.0	4710.0	4720.0	4730.0	4740.0	4750.0	4760.0	4770.0	4780.0	4790.0
14.8	4800.0	4810.0	4820.0	4830.0	4840.0	4850.0	4860.0	4870.0	4880.0	4890.0
14.9	4900.0	4910.0	4920.0	4930.0	4940.0	4950.0	4960.0	4970.0	4980.0	4990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
15.0	5000.0	5010.0	5020.0	5030.0	5040.0	5050.0	5060.0	5070.0	5080.0	5090.0
15.1	5100.0	5110.0	5120.0	5130.0	5140.0	5150.0	5160.0	5170.0	5180.0	5190.0
15.2	5200.0	5210.0	5220.0	5230.0	5240.0	5250.0	5260.0	5270.0	5280.0	5290.0
15.3	5300.0	5310.0	5320.0	5330.0	5340.0	5350.0	5360.0	5370.0	5380.0	5390.0
15.4	5400.0	5410.0	5420.0	5430.0	5440.0	5450.0	5460.0	5470.0	5480.0	5490.0
15.5	5500.0	5510.0	5520.0	5530.0	5540.0	5550.0	5560.0	5570.0	5580.0	5590.0
15.6	5600.0	5610.0	5620.0	5630.0	5640.0	5650.0	5660.0	5670.0	5680.0	5690.0
15.7	5700.0	5710.0	5720.0	5730.0	5740.0	5750.0	5760.0	5770.0	5780.0	5790.0
15.8	5800.0	5810.0	5820.0	5830.0	5840.0	5850.0	5860.0	5870.0	5880.0	5890.0
15.9	5900.0	5910.0	5920.0	5930.0	5940.0	5950.0	5960.0	5970.0	5980.0	5990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
16.0	6000.0	6010.0	6020.0	6030.0	6040.0	6050.0	6060.0	6070.0	6080.0	6090.0
16.1	6100.0	6110.0	6120.0	6130.0	6140.0	6150.0	6160.0	6170.0	6180.0	6190.0
16.2	6200.0	6210.0	6220.0	6230.0	6240.0	6250.0	6260.0	6270.0	6280.0	6290.0
16.3	6300.0	6310.0	6320.0	6330.0	6340.0	6350.0	6360.0	6370.0	6380.0	6390.0
16.4	6400.0	6410.0	6420.0	6430.0	6440.0	6450.0	6460.0	6470.0	6480.0	6490.0
16.5	6500.0	6510.0	6520.0	6530.0	6540.0	6550.0	6560.0	6570.0	6580.0	6590.0
16.6	6600.0	6610.0	6620.0	6630.0	6640.0	6650.0	6660.0	6670.0	6680.0	6690.0
16.7	6700.0	6710.0	6720.0	6730.0	6740.0	6750.0	6760.0	6770.0	6780.0	6790.0
16.8	6800.0	6810.0	6820.0	6830.0	6840.0	6850.0	6860.0	6870.0	6880.0	6890.0
16.9	6900.0	6910.0	6920.0	6930.0	6940.0	6950.0	6960.0	6970.0	6980.0	6990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
17.0	7000.0	7010.0	7020.0	7030.0	7040.0	7050.0	7060.0	7070.0	7080.0	7090.0
17.1	7100.0	7110.0	7120.0	7130.0	7140.0	7150.0	7160.0	7170.0	7180.0	7190.0
17.2	7200.0	7210.0	7220.0	7230.0	7240.0	7250.0	7260.0	7270.0	7280.0	7290.0
17.3	7300.0	7310.0	7320.0	7330.0	7340.0	7350.0	7360.0	7370.0	7380.0	7390.0
17.4	7400.0	7410.0	7420.0	7430.0	7440.0	7450.0	7460.0	7470.0	7480.0	7490.0
17.5	7500.0	7510.0	7520.0	7530.0	7540.0	7550.0	7560.0	7570.0	7580.0	7590.0
17.6	7600.0	7610.0	7620.0	7630.0	7640.0	7650.0	7660.0	7670.0	7680.0	7690.0
17.7	7700.0	7710.0	7720.0	7730.0	7740.0	7750.0	7760.0	7770.0	7780.0	7790.0
17.8	7800.0	7810.0	7820.0	7830.0	7840.0	7850.0	7860.0	7870.0	7880.0	7890.0
17.9	7900.0	7910.0	7920.0	7930.0	7940.0	7950.0	7960.0	7970.0	7980.0	7990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
18.0	8000.0	8010.0	8020.0	8030.0	8040.0	8050.0	8060.0	8070.0	8080.0	8090.0
18.1	8100.0	8110.0	8120.0	8130.0	8140.0	8150.0	8160.0	8170.0	8180.0	8190.0
18.2	8200.0	8210.0	8220.0	8230.0	8240.0	8250.0	8260.0	8270.0	8280.0	8290.0
18.3	8300.0	8310.0	8320.0	8330.0	8340.0	8350.0	8360.0	8370.0	8380.0	8390.0
18.4	8400.0	8410.0	8420.0	8430.0	8440.0	8450.0	8460.0	8470.0	8480.0	8490.0
18.5	8500.0	8510.0	8520.0	8530.0	8540.0	8550.0	8560.0	8570.0	8580.0	8590.0
18.6	8600.0	8610.0	8620.0	8630.0	8640.0	8650.0	8660.0	8670.0	8680.0	8690.0
18.7	8700.0	8710.0	8720.0	8730.0	8740.0	8750.0	8760.0	8770.0	8780.0	8790.0
18.8	8800.0	8810.0	8820.0	8830.0	8840.0	8850.0	8860.0	8870.0	8880.0	8890.0
18.9	8900.0	8910.0	8920.0	8930.0	8940.0	8950.0	8960.0	8970.0	8980.0	8990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

18.5	8500.0	8510.0	8520.0	8530.0	8540.0	8550.0	8560.0	8570.0	8580.0	8590.0
18.6	8600.0	8610.0	8620.0	8630.0	8640.0	8650.0	8660.0	8670.0	8680.0	8690.0
18.7	8700.0	8710.0	8720.0	8730.0	8740.0	8750.0	8760.0	8770.0	8780.0	8790.0
18.8	8800.0	8810.0	8820.0	8830.0	8840.0	8850.0	8860.0	8870.0	8880.0	8890.0
18.9	8900.0	8910.0	8920.0	8930.0	8940.0	8950.0	8960.0	8970.0	8980.0	8990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
19.0	9000.0	9010.0	9020.0	9030.0	9040.0	9050.0	9060.0	9070.0	9080.0	9090.0
19.1	9100.0	9110.0	9120.0	9130.0	9140.0	9150.0	9160.0	9170.0	9180.0	9190.0
19.2	9200.0	9210.0	9220.0	9230.0	9240.0	9250.0	9260.0	9270.0	9280.0	9290.0
19.3	9300.0	9310.0	9320.0	9330.0	9340.0	9350.0	9360.0	9370.0	9380.0	9390.0
19.4	9400.0	9410.0	9420.0	9430.0	9440.0	9450.0	9460.0	9470.0	9480.0	9490.0
19.5	9500.0	9510.0	9520.0	9530.0	9540.0	9550.0	9560.0	9570.0	9580.0	9590.0
19.6	9600.0	9610.0	9620.0	9630.0	9640.0	9650.0	9660.0	9670.0	9680.0	9690.0
19.7	9700.0	9710.0	9720.0	9730.0	9740.0	9750.0	9760.0	9770.0	9780.0	9790.0
19.8	9800.0	9810.0	9820.0	9830.0	9840.0	9850.0	9860.0	9870.0	9880.0	9890.0
19.9	9900.0	9910.0	9920.0	9930.0	9940.0	9950.0	9960.0	9970.0	9980.0	9990.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

CONDUCTANCE 10X
TABLE 11/25/80
OHM
FILE NUMBER IS CONDUCTANCE10X

10	0.0	100.0	200.0	300.0	400.0	500.0	600.0	700.0	800.0	900
11	1000.0	1100.0	1200.0	1300.0	1400.0	1500.0	1600.0	1700.0	1800.0	1900
12	2000.0	2100.0	2200.0	2300.0	2400.0	2500.0	2600.0	2700.0	2800.0	2900
13	3000.0	3100.0	3200.0	3300.0	3400.0	3500.0	3600.0	3700.0	3800.0	3900
14	4000.0	4100.0	4200.0	4300.0	4400.0	4500.0	4600.0	4700.0	4800.0	4900
15	5000.0	5100.0	5200.0	5300.0	5400.0	5500.0	5600.0	5700.0	5800.0	5900
16	6000.0	6100.0	6200.0	6300.0	6400.0	6500.0	6600.0	6700.0	6800.0	6900
17	7000.0	7100.0	7200.0	7300.0	7400.0	7500.0	7600.0	7700.0	7800.0	7900
18	8000.0	8100.0	8200.0	8300.0	8400.0	8500.0	8600.0	8700.0	8800.0	8900
19	9000.0	9100.0	9200.0	9300.0	9400.0	9500.0	9600.0	9700.0	9800.0	9900
20	10000.0	10100.0	10200.0	10300.0	10400.0	10500.0	10600.0	10700.0	10800.0	10900
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

TEMPERATURE
TABLE 1 11/24/80
DEGREES CENTIGRADE

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
10.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5
10.1	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0
10.2	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5
10.3	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0
10.4	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.5
10.5	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	3.0
10.6	3.0	3.1	3.1	3.2	3.2	3.3	3.3	3.4	3.4	3.5
10.7	3.5	3.6	3.6	3.7	3.7	3.8	3.8	3.9	3.9	4.0
10.8	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.4	4.4	4.5
10.9	4.5	4.6	4.6	4.7	4.7	4.8	4.8	4.9	4.9	5.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
11.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5
11.1	5.5	5.6	5.6	5.7	5.7	5.8	5.8	5.9	5.9	6.0
11.2	6.0	6.1	6.1	6.2	6.2	6.3	6.3	6.4	6.4	6.5
11.3	6.5	6.6	6.6	6.7	6.7	6.8	6.8	6.9	6.9	7.0
11.4	7.0	7.1	7.1	7.2	7.2	7.3	7.3	7.4	7.4	7.5
11.5	7.5	7.6	7.6	7.7	7.7	7.8	7.8	7.9	7.9	8.0
11.6	8.0	8.1	8.1	8.2	8.2	8.3	8.3	8.4	8.4	8.5
11.7	8.5	8.6	8.6	8.7	8.7	8.8	8.8	8.9	8.9	9.0
11.8	9.0	9.1	9.1	9.2	9.2	9.3	9.3	9.4	9.4	9.5
11.9	9.5	9.6	9.6	9.7	9.7	9.8	9.8	9.9	9.9	10.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
12.0	10.0	10.1	10.1	10.2	10.2	10.3	10.3	10.4	10.4	10.5
12.1	10.5	10.6	10.6	10.7	10.7	10.8	10.8	10.9	10.9	11.0
12.2	11.0	11.1	11.1	11.2	11.2	11.3	11.3	11.4	11.4	11.5
12.3	11.5	11.6	11.6	11.7	11.7	11.8	11.8	11.9	11.9	12.0
12.4	12.0	12.1	12.1	12.2	12.2	12.3	12.3	12.4	12.4	12.5
12.5	12.5	12.6	12.6	12.7	12.7	12.8	12.8	12.9	12.9	13.0
12.6	13.0	13.1	13.1	13.2	13.2	13.3	13.3	13.4	13.4	13.5
12.7	13.5	13.6	13.6	13.7	13.7	13.8	13.8	13.9	13.9	14.0
12.8	14.0	14.1	14.1	14.2	14.2	14.3	14.3	14.4	14.4	14.5
12.9	14.5	14.6	14.6	14.7	14.7	14.8	14.8	14.9	14.9	15.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
13.0	15.0	15.1	15.1	15.2	15.2	15.3	15.3	15.4	15.4	15.5
13.1	15.5	15.6	15.6	15.7	15.7	15.8	15.8	15.9	15.9	16.0
13.2	16.0	16.1	16.1	16.2	16.2	16.3	16.3	16.4	16.4	16.5
13.3	16.5	16.6	16.6	16.7	16.7	16.8	16.8	16.9	16.9	17.0
13.4	17.0	17.1	17.1	17.2	17.2	17.3	17.3	17.4	17.4	17.5
13.5	17.5	17.6	17.6	17.7	17.7	17.8	17.8	17.9	17.9	18.0
13.6	18.0	18.1	18.1	18.2	18.2	18.3	18.3	18.4	18.4	18.5
13.7	18.5	18.6	18.6	18.7	18.7	18.8	18.8	18.9	18.9	19.0
13.8	19.0	19.1	19.1	19.2	19.2	19.3	19.3	19.4	19.4	19.5
13.9	19.5	19.6	19.6	19.7	19.7	19.8	19.8	19.9	19.9	20.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
14.0	20.0	20.1	20.1	20.2	20.2	20.3	20.3	20.4	20.4	20.5
14.1	20.5	20.6	20.6	20.7	20.7	20.8	20.8	20.9	20.9	21.0

14.2	21.0	21.1	21.1	21.2	21.2	21.3	21.3	21.4	21.4	21.5
14.3	21.5	21.6	21.6	21.7	21.7	21.8	21.8	21.9	21.9	22.0
14.4	22.0	22.1	22.1	22.2	22.2	22.3	22.3	22.4	22.4	22.5
14.5	22.5	22.6	22.6	22.7	22.7	22.8	22.8	22.9	22.9	23.0
14.6	23.0	23.1	23.1	23.2	23.2	23.3	23.3	23.4	23.4	23.5
14.7	23.5	23.6	23.6	23.7	23.7	23.8	23.8	23.9	23.9	24.0
14.8	24.0	24.1	24.1	24.2	24.2	24.3	24.3	24.4	24.4	24.5
14.9	24.5	24.6	24.6	24.7	24.7	24.8	24.8	24.9	24.9	25.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
15.0	25.0	25.1	25.1	25.2	25.2	25.3	25.3	25.4	25.4	25.5
15.1	25.5	25.6	25.6	25.7	25.7	25.8	25.8	25.9	25.9	26.0
15.2	26.0	26.1	26.1	26.2	26.2	26.3	26.3	26.4	26.4	26.5
15.3	26.5	26.6	26.6	26.7	26.7	26.8	26.8	26.9	26.9	27.0
15.4	27.0	27.1	27.1	27.2	27.2	27.3	27.3	27.4	27.4	27.5
15.5	27.5	27.6	27.6	27.7	27.7	27.8	27.8	27.9	27.9	28.0
15.6	28.0	28.1	28.1	28.2	28.2	28.3	28.3	28.4	28.4	28.5
15.7	28.5	28.6	28.6	28.7	28.7	28.8	28.8	28.9	28.9	29.0
15.8	29.0	29.1	29.1	29.2	29.2	29.3	29.3	29.4	29.4	29.5
15.9	29.5	29.6	29.6	29.7	29.7	29.8	29.8	29.9	29.9	30.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
16.0	30.0	30.1	30.1	30.2	30.2	30.3	30.3	30.4	30.4	30.5
16.1	30.5	30.6	30.6	30.7	30.7	30.8	30.8	30.9	30.9	31.0
16.2	31.0	31.1	31.1	31.2	31.2	31.3	31.3	31.4	31.4	31.5
16.3	31.5	31.6	31.6	31.7	31.7	31.8	31.8	31.9	31.9	32.0
16.4	32.0	32.1	32.1	32.2	32.2	32.3	32.3	32.4	32.4	32.5
16.5	32.5	32.6	32.6	32.7	32.7	32.8	32.8	32.9	32.9	33.0
16.6	33.0	33.1	33.1	33.2	33.2	33.3	33.3	33.4	33.4	33.5
16.7	33.5	33.6	33.6	33.7	33.7	33.8	33.8	33.9	33.9	34.0
16.8	34.0	34.1	34.1	34.2	34.2	34.3	34.3	34.4	34.4	34.5
16.9	34.5	34.6	34.6	34.7	34.7	34.8	34.8	34.9	34.9	35.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
17.0	35.0	35.1	35.1	35.2	35.2	35.3	35.3	35.4	35.4	35.5
17.1	35.5	35.6	35.6	35.7	35.7	35.8	35.8	35.9	35.9	36.0
17.2	36.0	36.1	36.1	36.2	36.2	36.3	36.3	36.4	36.4	36.5
17.3	36.5	36.6	36.6	36.7	36.7	36.8	36.8	36.9	36.9	37.0
17.4	37.0	37.1	37.1	37.2	37.2	37.3	37.3	37.4	37.4	37.5
17.5	37.5	37.6	37.6	37.7	37.7	37.8	37.8	37.9	37.9	38.0
17.6	38.0	38.1	38.1	38.2	38.2	38.3	38.3	38.4	38.4	38.5
17.7	38.5	38.6	38.6	38.7	38.7	38.8	38.8	38.9	38.9	39.0
17.8	39.0	39.1	39.1	39.2	39.2	39.3	39.3	39.4	39.4	39.5
17.9	39.5	39.6	39.6	39.7	39.7	39.8	39.8	39.9	39.9	40.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
18.0	40.0	40.1	40.1	40.2	40.2	40.3	40.3	40.4	40.4	40.5
18.1	40.5	40.6	40.6	40.7	40.7	40.8	40.8	40.9	40.9	41.0
18.2	41.0	41.1	41.1	41.2	41.2	41.3	41.3	41.4	41.4	41.5
18.3	41.5	41.6	41.6	41.7	41.7	41.8	41.8	41.9	41.9	42.0
18.4	42.0	42.1	42.1	42.2	42.2	42.3	42.3	42.4	42.4	42.5
18.5	42.5	42.6	42.6	42.7	42.7	42.8	42.8	42.9	42.9	43.0
18.6	43.0	43.1	43.1	43.2	43.2	43.3	43.3	43.4	43.4	43.5
18.7	43.5	43.6	43.6	43.7	43.7	43.8	43.8	43.9	43.9	44.0
18.8	44.0	44.1	44.1	44.2	44.2	44.3	44.3	44.4	44.4	44.5
18.9	44.5	44.6	44.6	44.7	44.7	44.8	44.8	44.9	44.9	45.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
19.0	45.0	45.1	45.1	45.2	45.2	45.3	45.3	45.4	45.4	45.5

18.9	44.5	44.6	44.6	44.7	44.7	44.8	44.8	44.9	44.9	45.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
19.0	45.0	45.1	45.1	45.2	45.2	45.3	45.3	45.4	45.4	45.5
19.1	45.5	45.6	45.6	45.7	45.7	45.8	45.8	45.9	45.9	46.0
19.2	46.0	46.1	46.1	46.2	46.2	46.3	46.3	46.4	46.4	46.5
19.3	46.5	46.6	46.6	46.7	46.7	46.8	46.8	46.9	46.9	47.0
19.4	47.0	47.1	47.1	47.2	47.2	47.3	47.3	47.4	47.4	47.5
19.5	47.5	47.6	47.6	47.7	47.7	47.8	47.8	47.9	47.9	48.0
19.6	48.0	48.1	48.1	48.2	48.2	48.3	48.3	48.4	48.4	48.5
19.7	48.5	48.6	48.6	48.7	48.7	48.8	48.8	48.9	48.9	49.0
19.8	49.0	49.1	49.1	49.2	49.2	49.3	49.3	49.4	49.4	49.5
19.9	49.5	49.6	49.6	49.7	49.7	49.8	49.8	49.9	49.9	50.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
20.0	50.0	50.1	50.1	50.2	50.2	50.3	50.3	50.4	50.4	50.5
20.1	50.5	50.6	50.6	50.7	50.7	50.8	50.8	50.9	50.9	51.0
20.2	51.0	51.1	51.1	51.2	51.2	51.3	51.3	51.4	51.4	51.5
20.3	51.5	51.6	51.6	51.7	51.7	51.8	51.8	51.9	51.9	52.0
20.4	52.0	52.1	52.1	52.2	52.2	52.3	52.3	52.4	52.4	52.5
20.5	52.5	52.6	52.6	52.7	52.7	52.8	52.8	52.9	52.9	53.0
20.6	53.0	53.1	53.1	53.2	53.2	53.3	53.3	53.4	53.4	53.5
20.7	53.5	53.6	53.6	53.7	53.7	53.8	53.8	53.9	53.9	54.0
20.8	54.0	54.1	54.1	54.2	54.2	54.3	54.3	54.4	54.4	54.5
20.9	54.5	54.6	54.6	54.7	54.7	54.8	54.8	54.9	54.9	55.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
21.0	55.0	55.1	55.1	55.2	55.2	55.3	55.3	55.4	55.4	55.5
21.1	55.5	55.6	55.6	55.7	55.7	55.8	55.8	55.9	55.9	56.0
21.2	56.0	56.1	56.1	56.2	56.2	56.3	56.3	56.4	56.4	56.5
21.3	56.5	56.6	56.6	56.7	56.7	56.8	56.8	56.9	56.9	57.0
21.4	57.0	57.1	57.1	57.2	57.2	57.3	57.3	57.4	57.4	57.5
21.5	57.5	57.6	57.6	57.7	57.7	57.8	57.8	57.9	57.9	58.0
21.6	58.0	58.1	58.1	58.2	58.2	58.3	58.3	58.4	58.4	58.5
21.7	58.5	58.6	58.6	58.7	58.7	58.8	58.8	58.9	58.9	59.0
21.8	59.0	59.1	59.1	59.2	59.2	59.3	59.3	59.4	59.4	59.5
21.9	59.5	59.6	59.6	59.7	59.7	59.8	59.8	59.9	59.9	60.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
22.0	60.0	60.1	60.1	60.2	60.2	60.3	60.3	60.4	60.4	60.5
22.1	60.5	60.6	60.6	60.7	60.7	60.8	60.8	60.9	60.9	61.0
22.2	61.0	61.1	61.1	61.2	61.2	61.3	61.3	61.4	61.4	61.5
22.3	61.5	61.6	61.6	61.7	61.7	61.8	61.8	61.9	61.9	62.0
22.4	62.0	62.1	62.1	62.2	62.2	62.3	62.3	62.4	62.4	62.5
22.5	62.5	62.6	62.6	62.7	62.7	62.8	62.8	62.9	62.9	63.0
22.6	63.0	63.1	63.1	63.2	63.2	63.3	63.3	63.4	63.4	63.5
22.7	63.5	63.6	63.6	63.7	63.7	63.8	63.8	63.9	63.9	64.0
22.8	64.0	64.1	64.1	64.2	64.2	64.3	64.3	64.4	64.4	64.5
22.9	64.5	64.6	64.6	64.7	64.7	64.8	64.8	64.9	64.9	65.0
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
23.0	65.0	65.1	65.1	65.2	65.2	65.3	65.3	65.4	65.4	65.5
23.1	65.5	65.6	65.6	65.7	65.7	65.8	65.8	65.9	65.9	66.0

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 56602 RECORD-# 71616

1ST RETRIEVAL THROUG

SAMPLE LOCATION: SOUTHAM CAN WASH AT MOUTH NR WATSON UT
STATION ID: 09306610 LAT.LONG.SEQ.: 395650 1091406 01
DATE OF COLLECTION: BEGIN--800219 END-- TIME--1300
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464921300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
DID NOT HAVE 500ML BOTTLES; USED TWO 250ML IN PLACE OF. RUN OFF, RAIN AND SNOW MELT. D.O.=6.8

MAIL TO UTAH
SCHEDULES USED: 1025
TOTAL PARAMETERS: 6
COST OF ANALYSIS $ 2
SUBMIT CORRECTIONS T
WITHIN 15 DAYS FRO
CENTRAL LAB ID # A
WRD-QW FILE STORAGE
STATION HEADING IN
HEADER FILE IS PAS

ALK,TOT(CACO3).	MG/L	84	NO2+NO3 AS N DISS	MG/L	0.60
ALUMINUM DISSOLVED	UG/L	3200	PH FIELD		8.8
ANALYZING AGENCY		80020	PH LAB		8.0
ARSENIC DISSOLVED	UG/L	4	PHENOLS	UG/L	4
BARIUM DISSOLVED	UG/L	100	PHOS ORTHO DIS AS P	MG/L	0.41
BORON DISSOLVED	UG/L	110	PHOSPHATE DIS ORTHO	MG/L	1.3
BROMIDE	MG/L	0.1	PHOSPHORUS TOT AS P	MG/L	9.8
CADMIUM DISSOLVED	UG/L	0	PHOSPHORUS TOT PO4	MG/L	30
CALCIUM DISS	MG/L	29	POTASSIUM DISS	MG/L	2.9
CARBON DIS ORGANIC	MG/L	24	POTASSIUM 40,D.PCI/L		2.2
CHLORIDE DISS	MG/L	11	RESIDUE DIS CALC SUM	MG/L	239
CHROMIUM DISSOLVED	UG/L	10	RESIDUE DIS TON/AFT		0.33
COD	MG/L	430	RESIDUE DIS TON/DAY		16.1
COPPER DISSOLVED	UG/L	35	SAR		1.6
FLUORIDE DISS	MG/L	0.6	SELENIUM DISSOLVED	UG/L	0
HARDNESS NONCARB	MG/L	30	SILICA DISSOLVED	MG/L	9.1
HARDNESS TOTAL	MG/L	110	SODIUM + POTASSIUM	MG/L	41
IRON DISSOLVED	UG/L	1000	SODIUM DISS	MG/L	38
LEAD DISSOLVED	UG/L	11	SODIUM PERCENT		41
LITHIUM DISSOLVED	UG/L	20	SP. CONDUCTANCE FLD		170
MAGNESIUM DISS	MG/L	10	SP. CONDUCTANCE LAB		369
MANGANESE DISSOLVED	UG/L	160	STREAMFLOW(CFS)-INST		25
MERCURY DISSOLVED	UG/L	0.0	STRONTIUM DISSOLVED	UG/L	280
MOLYBDENUM DISSOLVED	UG/L	3	SULFATE DISS	MG/L	80
NITR. NH4 AS NH4 DIS	MG/L	0.13	SULFIDE TOTAL	MG/L	0.0
NITROGEN NH4 ASN DIS	MG/L	0.10	VANADIUM DISSOLVED	UG/L	110
NITROGEN NH4+ORG TOT	MG/L	0.03	WATER TEMP (DEG C)		0.0
			ZINC DISSOLVED	UG/L	70

CONTINUED ON NEXT PAGE

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 56602 RECORD-# 71616

1ST RETRIEVAL THROUG

SAMPLE LOCATION: SOUTHAM CAN WASH AT MOUTH NR WATSON UT
STATION ID: 09306610 LAT.LONG.SEQ.: 395650 1091406 01
DATE OF COLLECTION: BEGIN--800219 END-- TIME--1300
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464921300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
DID NOT HAVE 500ML BOTTLES; USED TWO 250ML IN PLACE OF. RUN OFF, RAIN AND SNOW MELT. D.O.=6.8

MAIL TO UTAH
SCHEDULES USED: 1025
TOTAL PARAMETERS: 6
COST OF ANALYSIS $ 2
SUBMIT CORRECTIONS T
WITHIN 15 DAYS FRO
CENTRAL LAB ID # A
WRD-QW FILE STORAGE
STATION HEADING IN
HEADER FILE IS PAS

ALK,TOT(CACO3).	MG/L	84	NO2+NO3 AS N DISS	MG/L	0.60
ALUMINUM DISSOLVED	UG/L	3200	PH FIELD		8.8
ANALYZING AGENCY		80020	PH LAB		8.0
ARSENIC DISSOLVED	UG/L	4	PHENOLS	UG/L	4
BARIUM DISSOLVED	UG/L	100	PHOS ORTHO DIS AS P	MG/L	0.41
BORON DISSOLVED	UG/L	110	PHOSPHATE DIS ORTHO	MG/L	1.3
BROMIDE	MG/L	0.1	PHOSPHORUS TOT AS P	MG/L	9.8
CADMIUM DISSOLVED	UG/L	0	PHOSPHORUS TOT PO4	MG/L	30
CALCIUM DISS	MG/L	29	POTASSIUM DISS	MG/L	2.9
CARBON DIS ORGANIC	MG/L	24	POTASSIUM 40,D.PCI/L		2.2
CHLORIDE DISS	MG/L	11	RESIDUE DIS CALC SUM	MG/L	239
CHROMIUM DISSOLVED	UG/L	10	RESIDUE DIS TON/AFT		0.33
COD	MG/L	430	RESIDUE DIS TON/DAY		16.1
COPPER DISSOLVED	UG/L	35	SAR		1.6
FLUORIDE DISS	MG/L	0.6	SELENIUM DISSOLVED	UG/L	0
HARDNESS NONCARB	MG/L	30	SILICA DISSOLVED	MG/L	9.1
HARDNESS TOTAL	MG/L	110	SODIUM + POTASSIUM	MG/L	41
IRON DISSOLVED	UG/L	1000	SODIUM DISS	MG/L	38
LEAD DISSOLVED	UG/L	11	SODIUM PERCENT		41
LITHIUM DISSOLVED	UG/L	20	SP. CONDUCTANCE FLD		170
MAGNESIUM DISS	MG/L	10	SP. CONDUCTANCE LAB		369
MANGANESE DISSOLVED	UG/L	160	STREAMFLOW(CFS)-INST		25
MERCURY DISSOLVED	UG/L	0.0	STRONTIUM DISSOLVED	UG/L	280
MOLYBDENUM DISSOLVED	UG/L	3	SULFATE DISS	MG/L	80
NITR. NH4 AS NH4 DIS	MG/L	0.13	SULFIDE TOTAL	MG/L	0.0
NITROGEN NH4 ASN DIS	MG/L	0.10	VANADIUM DISSOLVED	UG/L	110
NITROGEN NH4+ORG TOT	MG/L	0.03	WATER TEMP (DEG C)		0.0
			ZINC DISSOLVED	UG/L	70

CONTINUED ON NEXT PAGE

WATER QUALITY ANALYSIS CONTINUED
LAB ID # 56602 RECORD # 71616

SAMPLE LOCATION: SOUTHAM CAN WASH AT MOUTH NR WATSON UT
STATION ID: 09306610 LAT.LONG.SEQ.: 395650 1091406 01
DATE OF COLLECTION: BEGIN--800219 END-- TIME--1300

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	29	1.447	CHLORIDE DISS	11	0.310
MAGNESIUM DISS	10	0.823	FLUORIDE DISS	0.6	0.032
POTASSIUM DISS	2.9	0.074	SULFATE DISS	80	1.666
SODIUM DISS	38	1.653	ALK,TOT(CACO3)	84	1.678
			NO2+NO3 AS N D	0.60	0.043
TOTAL		3.997	TOTAL		3.729

PERCENT DIFFERENCE = 3.47

QUALITY CONTROL INFORMATION FOR LAB ID # 56602 RECORD # 71616

***THE FOLLOWING PARAMETER MAY CONTRIBUTE TO CATION SUM--AL DISS	VALUE =	3200.000
***BOTH FLD & LAB CONDUCTANCES SUBMITTED, ONLY FIELD VALUE IS STORED IN WATSTORE	VALUE =	170.000
** BOTH FIELD & LAB CODUCTANCES SUBMITTED AND DIFFER BY > 10%	VALUE =	53.929
**THE PERCENT DIFFERENCE COMPUTED FOR THE ANALYSIS DOES NOT AGREE WITH THE CURVE	VALUE =	2.985

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 56602 RECORD-# 71616

5-25-80

SAMPLE LOCATION: SOUTHAM CAN WASH AT MOUTH NR WATSON UT
STATION ID: 09306610 LAT.LONG.SEQ.: 395650 1091406 01
DATE OF COLLECTION: BEGIN--800219 END-- TIME--1300
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 4649 1300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
DID NOT HAVE 500ML BOTTLES; USED TWO 250ML IN PLACE OF. RUN OFF, RAIN AND SNOW MELT. D.O.=6.8

#1025, #1031, #1041 $268.67

ALK.TOT(CACO3)	MG/L	84	NO2+NO3 AS N DISS	MG/L	0.60
ALUMINUM DISSOLVED	UG/L	3200	PH FIELD		8.8
ANALYZING AGENCY		80020	PH LAB		8.0
ARSENIC DISSOLVED	UG/L	4	PHENOLS	UG/L	4
BARIUM DISSOLVED	UG/L	100	PHOS ORTHO DIS AS P	MG/L	0.41
BORON DISSOLVED	UG/L	110	PHOSPHATE DIS ORTHO	MG/L	1.3
BROMIDE	MG/L	0.1	PHOSPHORUS TOT AS P	MG/L	9.8
CADMIUM DISSOLVED	UG/L	0	PHOSPHORUS TOT PO4	MG/L	30
CALCIUM DISS	MG/L	29	POTASSIUM DISS	MG/L	2.9
CARBON DIS ORGANIC	MG/L	24	POTASSIUM 40,D.PCI/L		2.2
CHLORIDE DISS	MG/L	11	RESIDUE DIS CALC SUM	MG/L	239
CHROMIUM DISSOLVED	UG/L	10	RESIDUE DIS TON/AFT		0.33
COD	MG/L	430	RESIDUE DIS TON/DAY		16.1
COPPER DISSOLVED	UG/L	35	SAR		1.6
FLUORIDE DISS	MG/L	0.6	SELENIUM DISSOLVED	UG/L	0
HARDNESS NONCARB	MG/L	30	SILICA DISSOLVED	MG/L	9.1
HARDNESS TOTAL	MG/L	110	SODIUM + POTASSIUM	MG/L	41
IRON DISSOLVED	UG/L	1000	SODIUM DISS	MG/L	38
LEAD DISSOLVED	UG/L	11	SODIUM PERCENT		41
LITHIUM DISSOLVED	UG/L	20	SP. CONDUCTANCE FLD		170
MAGNESIUM DISS	MG/L	10	SP. CONDUCTANCE LAB		369
MANGANESE DISSOLVED	UG/L	160	STREAMFLOW(CFS)-INST		25
MERCURY DISSOLVED	UG/L	0.0	STRONTIUM DISSOLVED	UG/L	280
MOLYBDENUM DISSOLVED	UG/L	3	SULFATE DISS	MG/L	80
NITR. NH4 AS NH4 DIS	MG/L	0.13	SULFIDE TOTAL	MG/L	0.0
NITROGEN NH4 ASN DIS	MG/L	0.10	VANADIUM DISSOLVED	UG/L	110
NITROGEN NH4+ORG TOT	MG/L	0.03	WATER TEMP (DEG C)		0.0
			ZINC DISSOLVED	UG/L	70

CONTINUED ON NEXT PAGE

WATER QUALITY ANALYSIS CONTINUED
LAB ID # 56602 RECORD # 71616

SAMPLE LOCATION: SOUTHAM CAN WASH AT MOUTH NR WATSON UT
STATION ID: 09306610 LAT.LONG.SEQ.: 395650 1091406 01
DATE OF COLLECTION: BEGIN--800219 END-- TIME--1300

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	29	1.447	CHLORIDE DISS	11	0.310
MAGNESIUM DISS	10	0.823	FLUORIDE DISS	0.6	0.032
POTASSIUM DISS	2.9	0.074	SULFATE DISS	80	1.666
SODIUM DISS	38	1.653	ALK,TOT(CACO3)	84	1.678
			NO2+NO3 AS N D	0.60	0.043
TOTAL		3.997	TOTAL		3.729

PERCENT DIFFERENCE = 3.47

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY DENVER, COLORADO

WATER QUALITY ANALYSIS
LAB-ID # 243609 RECORD-# 128643

12-6-80

SAMPLE LOCATION: SOUTHAM CAN WASH AT MOUTH NR WATSON UT
STATION ID: 09306610 LAT.LONG.SEQ.: 395650 1091406 01
DATE OF COLLECTION: BEGIN--800825 END-- TIME--1500
STATE CODE: 49 COUNTY CODE: 047 PROJECT IDENTIFICATION: 464921300
DATA TYPE: 2 SOURCE: SURFACE WATER GEOLOGIC UNIT:
COMMENTS: UNIQUE-#:
FIELD DO=3.0. FLOW WAS A HEAVY THUNDER SHOWER OVER AREA.
NO FU SAMPLE FOUND FOR CL & SO4 RERUNS.
#1025, #1031, #1064 $275.43

ALK TOT LAB. CACO3	MG/L	150	NITR. DIS NH4 AS NH4	MG/L	0.04
ALUMINUM DISSOLVED	UG/L	40	PH LAB		7.4
ALUMINUM TOTAL	DETR.	DELETED	PHENOLS	UG/L	26
ANALYZING AGENCY		80020	PHOS DIS ORTHO AS P	MG/L	0.10
ARSENIC DISSOLVED	UG/L	6	PHOS TOT (TOT) AS P	MG/L	17
BARIUM DISSOLVED	UG/L	100	PHOS TOT. (TOT) -PO4	MG/L	52
BORON DISSOLVED	UG/L	110	PHOS.DIS ORTHO -PO4	MG/L	0.31
BROMIDE	MG/L	0.2	POTASSIUM DISS	MG/L	3.3
CADMIUM DISSOLVED	UG/L	0	POTASSIUM 40,D.PCI/L		2.5
CALCIUM DISS	MG/L	60	RESIDUE DIS CALC SUM	MG/L	564
CARBON DIS ORGANIC	MG/L	24	RESIDUE DIS TON/AFT		0.77
CHLORIDE DISS	MG/L	11	RESIDUE DIS TON/DAY		59.4
CHROMIUM DISSOLVED	UG/L	0	SAR		3.4
COD	MG/L	1000	SELENIUM DISSOLVED	UG/L	2
COPPER DISSOLVED	UG/L	10	SILICA DISSOLVED	MG/L	15
FLUORIDE DISS	MG/L	0.4	SODIUM DISS	MG/L	100
HARDNESS NONCARB	MG/L	15	SODIUM PERCENT		56
HARDNESS TOTAL	MG/L	170	SP. CONDUCTANCE FLD		700
IRON DISSOLVED	UG/L	120	SP. CONDUCTANCE LAB		748
LEAD DISSOLVED	UG/L	0	STREAMFLOW(CFS)-INST		39
MAGNESIUM DISS	MG/L	3.5	STRONTIUM DISSOLVED	UG/L	990
MANGANESE DISSOLVED	UG/L	10	SULFATE DISS	MG/L	270
MERCURY DISSOLVED	UG/L	0.1	SULFIDE TOTAL	DETR.	DELETED
MOLYBDENUM DISSOLVED	UG/L	7	VANADIUM DISSOLVED	UG/L	14
NITR DIS NO2+NO3 -N	MG/L	2.0	WATER TEMP (DEG C)		18.5
NITR DISS NH4 AS N	MG/L	0.03	ZINC DISSOLVED	UG/L	20

CONTINUED ON NEXT PAGE

WATER QUALITY ANALYSIS CONTINUED
LAB ID # 243609 RECORD # 128643

SAMPLE LOCATION: SOUTHAM CAN WASH AT MOUTH NR WATSON UT
STATION ID: 09306610 LAT.LONG.SEQ.: 395650 1091406 01
DATE OF COLLECTION: BEGIN--800825 END-- TIME--1500

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
CALCIUM DISS	60	2.994	CHLORIDE DISS	11	0.310
MAGNESIUM DISS	3.5	0.288	FLUORIDE DISS	0.4	0.021
POTASSIUM DISS	3.3	0.084	SULFATE DISS	270	5.621
SODIUM DISS	100	4.350	ALK TOT LAB.	150	2.997
			NITR DIS NO2+N	2.0	0.143
TOTAL		7.716	TOTAL		9.093

PERCENT DIFFERENCE = -8.19

09306610
S-13

E.W.+

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location Southern Cyn. Wk. Mouth Computed by BF Checked by

Date		8-25-50				8-25-50						
Time		1545				1545						
Gage height		—				—						
Sampling Sta.		1# 5.0	14.0	19.0		2# 5.0	14.0	19.0				
Temp. & Spec. Cond.		18.5/725	/	/	/	18.5/725	/	/	/	/	/	/
Remarks		Q = 39.0 cfs		PH = 8.0								
WEIGHT OF SAMPLE	Gross	661.2	656.2	639.0		677.1	703.9	691.5				
	Tare	370	365	360		362	361	369				
	Net	291.2	291.2	279.		315.1	342.8	327.5				
Container no.		6	3	5		1	4	2				
WEIGHT OF SEDIMENT	Gross	80.531	75.832	81.932		82.921	87.444	80.067				
	Tare	56.413	52.969	58.844		55.497	59.866	51.180				
	Net	24.118	22.863	23.088		27.424	27.578	28.887				
	D.S. corr.											
	Net											
Conc. (ppm)		82,823	78,513	82753		87,033	80,449	88,205		=		83296

S-13 Southern Cyn. Wk. Mouth. 09306610

Date		2-19-80				2-19-50						
Time		1420				1420						
Gage height		1.23				1.23						
Sampling Sta.		1# 3.0	5.0	8.5		2# 3.0	5.0	8.5				
Temp & Spec. Cond.		0/170	/	/	/	0/170	/	/	/	/	/	/
Remarks		Q = 25.0 cfs		PH = 8.8	D.O. = 6.8							
WEIGHT OF SAMPLE	Gross	698.6	618.2	698.6		699.8	687.	697.1				
	Tare	358	363	363		363	360	365				
	Net	340.6	255.2	335.6		336.8	327	336.1				
Container no.		24	34	020		57	030	06				
WEIGHT OF SEDIMENT	Gross	48.400	46.870	51.641		48.192	50.171	50.629				
	Tare	35.315	35.418	36.464		35.748	36.848	36.956				
	Net	13.085	11.452	15.177		12.444	13.323	13.773				
	D.S. corr.											
	Net											
Conc. (ppm)		38,417	44,875	45,223		36,948	40,743	40,979		=		41,199

FIELD INSPECTION NOTES

Number: 09396640 (cols 1–10)

Columns 1-10 and 71-76 are to be duplicated on all cards with notations between columns 11-70.

Mo Da Yr: 8 21 83 (cols 71 72 73 74 75 76)

Name: South Fork Dix Creek Nr Watson | Party: Hay | Discharge: 39.0 | 1

Width | Area: 7.0 | Velocity: 5.57 | Meter: 40500 | Quality: Fair | Stage | 2

RECORDER INSPECTIONS

	Time	R.D.	Stage I.S.	T-WT	O.S.	Temp.	Cond.	Turbidity	Transducer	
Arrive										3
Start										4
										5
Finish										6
Depart										7

Field Verification and Adjustments

Time	Temp.	Cond.	~~Turbidity~~	Adjustments and remarks	
1545	18.5	725	Plt = 8.0		8
					9
					10
					11
					12

EJT

Suspended Sediment Samples

Time	Stage	Method	Verti-cals	Bottles	Nozzle dia.	Location and stations of verticals 1/ 3/ 5/	
1545		Cont.	3	6	.25	5.0 14.0 19.0	13
							14
							15

FIELD INSPECTION NOTES

Number: 09306610 (cols 1–10)

Columns 1-10 and 71-76 are to be duplicated on all cards with notations between columns 11-70.

Mo Da Yr: 2 19 80 (cols 71 72 73 74 75 76)

Name: Southam: Cyn. nr. Mouth

Party: Hall

Discharge: 25.0

Width	Area	Velocity	Meter	Quality	Stage
9.5	4.0	6.25	400500	good	1.23

RECORDER INSPECTIONS

	Time	R.D.	Stage I.S.	Stage T-WT	O.S.	Temp.	Cond.	Turbidity	Transducer
Arrive									
Start									
Finish									
Depart									

	Time	Temp.	Cond.	~~Turbidity~~	Adjustments and remarks
Field ification and justments	1301	0	170	pH = 8.7	Calibrated 100 Spec. Cond. Meter
				D.O. = 6.8	

E.d.I

	Time	Stage	Method	Verti-cals	Bottles	Nozzle dia.	Location and stations of verticals
Suspended sediment samples	1420	1.35	C.H.	3	6	.25	3.0 1/ 5.0 3/ 8.5 5/

STATION 09306625

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE IS 02-13-81

STATION NUMBER 09306525 ASPHALT WASH AT SOUTH NE WILSON, UTAH STREAM SOURCE AGENCY USGS
LATITUDE 384524 LONGITUDE 1091517 DRAINAGE AREA 17.50 DATUM 4950.00 STATE 49 COUNTY 047

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	1M
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	124	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	20	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	175.00	.00	.00	.00	.00	.00	146.00	20.00
MEAN	.000	.000	.000	.000	5.07	.000	.000	.000	.000	.000	4.71	.67
MAX	.00	.00	.00	.00	83	.00	.00	.00	.00	.00	124	18
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	349	.00	.00	.00	.00	.00	290	40

CAL YR 1979 TOTAL 67.83 MEAN .19 MAX 19 MIN .00 AC-FT 135
WTR YR 1980 TOTAL 342.00 MEAN .93 MAX 124 MIN .00 AC-FT 678

Station 09306625

No Data (no flow at time of visits)

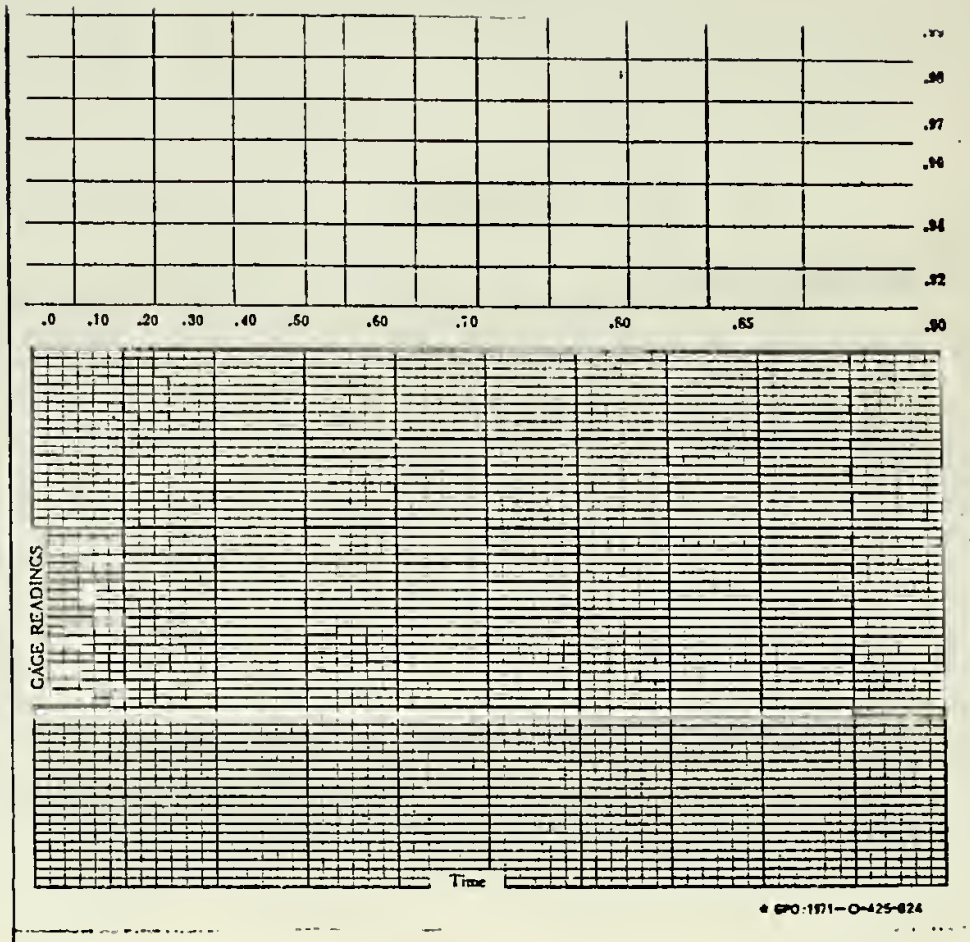
STATION 09306700

TABLE

STATION 09306700
WHITE RIVER BELOW ASPHALT WASH, NEAR WATSON, UTAH
Mean Daily Discharge (cfs)
October 1979 - September 1980

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	295	475	225	350	320	650	420	1,153	2,074	1,023	350	325
2	284	421	206	345	350	550	420	1,340	2,302	1,101	345	320
3	288	405	242	340	370	530	400	1,220	2,188	1,482	320	330
4	295	448	277	330	400	480	410	1,197	2,121	1,400	325	310
5	313	439	385	335	380	550	410	1,212	2,169	1,108	325	310
6	313	457	380	350	380	550	450	1,295	2,425	965	320	325
7	333	457	387	370	370	550	490	1,600	2,466	874	315	340
8	353	434	380	360	360	550	460	1,650	2,687	802	302	345
9	341	452	350	370	360	550	420	1,700	2,645	758	320	335
10	333	439	350	379	360	450	420	1,800	2,592	686	315	400
11	337	439	340	320	430	450	460	1,900	2,550	637	310	545
12	341	434	345	350	480	430	440	2,216	2,645	631	274	440
03	349	425	360	380	520	430	430	2,273	2,844	598	238	390
14	361	413	346	375	620	430	420	1,988	2,850	582	218	385
15	373	389	340	365	700	540	430	1,730	2,700	642	230	395
16	413	393	343	363	750	540	470	1,645	2,600	615	306	370
17	385	397	352	360	980	580	540	1,756	2,350	565	360	380
18	385	439	370	355	1,100	480	587	1,979	2,200	530	355	390
19	389	434	379	350	1,400	400	626	1,586	2,102	515	370	355
20	434	475	360	350	1,450	450	681	1,477	2,017	505	325	350
21	384	430	360	345	1,300	480	758	1,662	1,934	475	315	345
22	542	377	362	338	1,050	520	824	1,849	1,883	475	278	360
23	551	333	358	335	720	560	952	2,400	1,773	450	234	370
24	502	253	345	330	550	560	1,036	2,800	1,679	405	335	375
25	502	270	333	328	500	540	1,017	2,800	1,512	380	758	365
26	502	425	325	330	500	540	958	2,500	1,452	435	985	345
27	497	409	315	331	500	540	945	2,529	1,355	430	480	340
28	493	325	360	330	550	500	991	2,321	1,257	410	385	335
29	502	242	385	325	600	450	1,023	2,666	1,160	385	360	340
30	497	219	371	320		420	1,134	2,274	1,075	355	335	330
31	502		355	320		420		2,140		335	310	
Total	11,832	11,953	10,586	10.729	18,350	15,670	19,022	58,758	63,607	20,554	10,998	10,845
Mean	382	398	341	346	633	505	634	1,985	2,120	663	355	362
Max	551	474.5	387	380	1,450	650	1,134	2,800	2,850	1,482	984.5	545
Min	284	219	206	320	320	400	400	1,153	1,075	335	218	310

Water Year 1980 Total 262,906 Mean 720 Max 2,850 Min 206 Ac-Ft 520,554



* GPO:1971—O-425-824

+.15

E.T.R.
Samples taken at this discharge

9-275.2
(May 1971)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

Meas. No. _____
Comp. by _____
Checked by _____

DISCHARGE MEASUREMENT NOTES

Sta. No. 09306700
White R. blw. Asphalt, W.
Date Nov 02 1979 Party B Hale
Width 64.0 Area 190. Vel. 2.07 G. H. 3.47 Disch. 394.
Method 2/8 .6 No. secs. 29 G. H. change -.0 in 1.17 hrs. Susp. Cable
Method coef. 1.0 Hor. angle coef. 1.0 Susp. coef. 1.0 Meter No. 3341
Type of meter STD. Gurley
Date rated 10/74 for rod, other.
Meter 60 ft. above bottom of 50 lb weight.
Spin before meas. 3 mn : after none
Meas. plots .... % diff. from rating .....
Wading, cable, ice, boat, upstr., downstr., side bridge At feet, mile, above, below gage, and .....
Check-bar, found .....
changed to ..... at .....
Correct .....
Levels obtained .....

GAGE READINGS

Time		Recorder	Inside	Outside
1040		3.47	3.47	
1045		3.47		
1150		3.47		
1300		3.47	3.47	3.47
Weighted M. G. H.				
G. H. correction				
Correct M. G. H.				

Measurement rated excellent (2%), good (5%), fair (8%), poor (over 8%), based on following conditions: Cross section Stable Sand & Pebbles
Flow Smooth Weather Clear
Other ..... Air 54 °F @ 1030
Gage OK Water 48 °F @ 1030
..... Record removed Yes Intake flushed No
Observer .....
.....
Control Open - Ice free - Upstr. 600 ft. blw.
.....
Remarks .....
.....
.....
G. H. of zero flow ..... ft.

River at ...

Angle coef.	Dist. from initial point	Width	Depth	Observation depth	Revolutions	Time in seconds	VELOCITY: At point	VELOCITY: Mean in vertical	Adjusted for hor. angle or	Area	Discharge	
	42	—0—				10	45					
	45.0	2.5	1.30	.6	15	50		.674		3.25	2.19	.85
	47.0	2.0	2.10	.6	15	40		.837		4.2	3.51	
	49.0	2.0	2.50	.6	30	44		1.51		5.0	7.55	
	51.0	2.0	2.80	.8	30	40	1.65	1.65		5.6	9.24	.90
				.2	30	40	1.65					.92
	53.0	2.0	2.80	.8	40	47	1.88	1.84		5.6	10.30	.94
				.2	40	49	1.80					
	55.0	2.0	3.20	.8	40	48	1.84	1.90	45.3°	6.6	12.54	.96
				.2	40	45	1.96					.97
	57.0	2.0	3.90	.8	20	44	1.01	1.48		7.8	11.58	.98
				.2	40	45	1.96					.99
	59.0	2.0	3.60	.8	30	46	1.44	1.74		4.2	10.51	
				.2	40	43	2.05					
°	61.0	2.0	3.20	.8	40	45	1.96	2.05		6.4	13.15	1.00
				.2	40	41	2.15					
	63.0	2.0	3.40	.8	50	41	2.68	2.53		6.8	17.23	
				.2	50	46	2.39					.99
	65.0	2.0	3.70	.8	50	42	2.61	2.55		7.4	18.90	.98
				.2	50	44	2.50					.97
	67.0	2.0	4.0	.8	50	47	2.34	2.51		8.0	20.08	.96
				.2	50	41	2.68					
	69.0	2.0	5.0	.8	40	44	2.00	2.46	161.6°	10.0	24.60	.94
				.2	60	45	2.92					.92
	71.0	2.0	5.6	.8	50	44	2.50	2.81		11.2	31.52	.90
				.2	60	42	3.13					
	73.0	2.0	5.70	.8	50	40	2.74	2.90		11.4	33.06	
				.2	60	43	3.06					.85
	75.0	2.0	6.40	.8	40	42	2.10	2.65		12.8	33.98	
				.2	60	41	3.21					
												.80

.0 .10 .20 .30 .40 .50 .60 .70 .75

.0 .10 .20 .30 .40 .50 .60 .70 .75

	77.0	2.0	5.6	.8	30	43	1.54	2.37		11.2	26.60	.80
				.2	60	41	3.21					
	79.0	2.0	3.30	.8	50	40	2.74	2.83		5.3	14.99	.85
				.4	60	45	2.92					
	81.0	2.0	3.5	.8	40	48	1.84	2.38	318.4°	7.0	16.66	
				.2	60	45	2.92					
	83.0	2.0	3.30	.8	30	41	2.15	2.38		6.6	15.70	.90
				.2	50	42	2.61					.92
	85.0	2.0	3.30	.8	30	41	2.15	2.24		6.6	14.81	.94
				.2	50	47	2.34					
	87.0	2.5	3.50	.8	30	46	1.44	1.77		8.7	15.39	.96
				.2	40	42	2.10					.97
	90.	3.0	3.0	.8	30	48	1.38	1.57		9.0	14.13	.98
				.2	40	50	1.76					.99
	93.0	3.5	2.90	.8	20	40	1.11	1.32		6.4	8.48	
				.2	30	43	1.54					
°	97.0	4.0	1.70	.6	10	44		5.15		6.8	3.50	1.00
	101.0	3.5	.70	.5	20	47		9.48		2.4	2.32	
	104.	2.5	.80	.5	15	49		6.81		2.0	1.37	
	106		—0—									.99
						11 50		2.07		140.2	394.19	.98
												.97
		53.0			72.0			82.0				.96
						3/2		5/5				.94

Rating Table No. 5
Station 09306700
effective May 16, 1978

12-13-78
by Munson

Stage	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
2.80	118	120.7	123.4	126.1	128.8	131.5	134.2	136.9	139.6	142.3
2.90	145	147.8	150.6	153.4	156.2	159.0	161.8	164.6	167.4	170.2
3.00	173	176.0	179.0	182.0	185.0	188.0	191.0	194.0	197.0	200.0
3.10	203	206.2	209.4	212.6	215.8	219.0	222.2	225.4	228.6	231.8
3.20	235	238.5	242.0	245.5	249.0	252.5	256.0	259.5	263.0	266.5
3.30	270	273.5	277.0	280.5	284.0	287.5	291.0	294.5	298.0	301.5
3.40	305	309.0	313.0	317.0	321.0	325.0	329.0	333.0	337.0	341.0
3.50	345	349	353	357	361	365	369	373	377	381
3.60	385	389	393	397	401	405	409	413	417	421
3.70	425	429.5	434	438.5	443	447.5	452	456.5	461	465.5
3.80	470	474.5	479	483.5	488	492.5	497	501.5	506	510.5
3.90	515	519.5	524	528.5	533	537.5	542	546.5	551	555.5
4.	560	565	570	575	580	585	590	595	600	605
4.10	610	615	620	625	630	635	640	645	650	655
4.20	660	665	670	675	680	685	690	695	700	705
4.30	710	715.5	721	726.5	732	737.5	743	748.5	754	759.5
4.40	765	770.5	776	781.5	787	792.5	798	803.5	809	814.5
4.50	820	826	832	838	844	850	856	862	868	874
4.60	880	886	892	898	904	910	916	922	928	934
4.70	940	946	952	958	964	970	976	982	988	994
4.80	1000	1006	1012	1018	1024	1030	1036	1042	1048	1054
4.90	1060	1066	1072	1078	1084	1090	1096	1102	1108	1114
5.00	1120	1126	1132	1138	1144	1150	1156	1162	1168	1174
5.10	1180	1187	1194	1201	1208	1215	1222	1229	1236	1243
5.20	1250	1257	1264	1271	1278	1285	1292	1299	1306	1313
5.30	1320	1327	1334	1341	1348	1355	1362	1369	1376	1383
5.40	1390	1397	1404	1411	1418	1425	1432	1439	1446	1453
5.50	1460	1467	1474	1481	1488	1495	1502	1509	1516	1523
5.	1530	1537	1544	1551	1558	1565	1572	1579	1586	1593
5.70	1600	1608	1616	1624	1632	1640	1648	1656	1664	1672
5.80	1630	1688	1696	1704	1712	1720	1728	1736	1744	1752
5.90	1760	1768	1776	1784	1792	1800	1808	1816	1824	1832

Stage	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
6.00	1840	1848	1856	1864	1872	1880	1888	1896	1904	1912
6.10	1920	1928	1936	1944	1952	1960	1968	1976	1984	1992
6.20	2000	2008	2016	2024	2032	2040	2048	2056	2064	2072
6.30	2080	2088	2096	2104	2112	2120	2128	2136	2144	2152
6.40	2160	2168	2176	2184	2192	2200	2208	2216	2224	2232
6.50	2240	2249	2258	2267	2276	2285	2294	2303	2312	2321
6.60	2330	2339	2348	2357	2366	2375	2384	2393	2402	2411
6.70	2420	2429	2438	2447	2456	2465	2474	2483	2492	2501
6.80	2510	2519	2528	2537	2546	2555	2564	2573	2582	2591
6.90	2600	2609	2618	2627	2636	2645	2654	2663	2672	2681
7.00	2690	2699	2708	2717	2726	2735	2744	2753	2762	2771
7.10	2780	2789	2798	2807	2816	2825	2834	2843	2852	2861
7.20	2870	2879	2888	2897	2906	2915	2924	2933	2942	2951
7.30	2960	2969	2978	2987	2996	3005	3014	3023	3032	3041
7.40	3050	3060	3070	3080	3090	3100	3110	3120	3130	3140
7.50	3150	3160	3170	3180	3190	3200	3210	3220	3230	3240
7.60	3250	3260	3270	3280	3290	3300	3310	3320	3330	3340
7.70	3350	3360	3370	3380	3390	3400	3410	3420	3430	3440
7.80	3450	3460	3470	3480	3490	3500	3510	3520	3530	3540
7.90	3550	3560	3570	3580	3590	3600	3610	3620	3630	3640
8.00	3650	3660	3670	3680	3690	3700	3710	3720	3730	3740
8.10	3750	3760	3770	3780	3790	3800	3810	3820	3830	3840
8.20	3850	3860	3870	3880	3890	3900	3910	3920	3930	3940
8.30	3950	3960	3970	3980	3990	4000	4010	4020	4030	4040
8.40	4050									

6.0	1960.0	1969.5	1979.0	1988.5	1998.0	2007.5	2017.0	2026.5	2036.0	2045.5
6.1	2055.0	2064.5	2074.0	2083.5	2093.0	2102.5	2112.0	2121.5	2131.0	2140.5
6.2	2150.0	2159.5	2169.0	2178.5	2188.0	2197.5	2207.0	2216.5	2226.0	2235.5
6.3	2245.0	2254.5	2264.0	2273.5	2283.0	2292.5	2302.0	2311.5	2321.0	2330.5
6.4	2340.0	2349.5	2359.0	2368.5	2378.0	2387.5	2397.0	2406.5	2416.0	2425.5
6.5	2435.0	2445.5	2456.0	2466.5	2477.0	2487.5	2498.0	2508.5	2519.0	2529.5
6.6	2540.0	2550.5	2561.0	2571.5	2582.0	2592.5	2603.0	2613.5	2624.0	2634.5
6.7	2645.0	2655.5	2666.0	2676.5	2687.0	2697.5	2708.0	2718.5	2729.0	2739.5
6.8	2750.0	2760.5	2771.0	2781.5	2792.0	2802.5	2813.0	2823.5	2834.0	2844.5
6.9	2855.0	2865.5	2876.0	2886.5	2897.0	2907.5	2918.0	2928.5	2939.0	2949.5

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
7.0	2960.0	2971.5	2983.0	2994.5	3006.0	3017.5	3029.0	3040.5	3052.0	3063.5
7.1	3075.0	3086.5	3098.0	3109.5	3121.0	3132.5	3144.0	3155.5	3167.0	3178.5
7.2	3190.0	3201.5	3213.0	3224.5	3236.0	3247.5	3259.0	3270.5	3282.0	3293.5
7.3	3305.0	3316.5	3328.0	3339.5	3351.0	3362.5	3374.0	3385.5	3397.0	3408.5
7.4	3420.0	3431.5	3443.0	3454.5	3466.0	3477.5	3489.0	3500.5	3512.0	3523.5
7.5	3535.0	3548.0	3561.0	3574.0	3587.0	3600.0	3613.0	3626.0	3639.0	3652.0
7.6	3665.0	3678.0	3691.0	3704.0	3717.0	3730.0	3743.0	3756.0	3769.0	3782.0
7.7	3795.0	3808.0	3821.0	3834.0	3847.0	3860.0	3873.0	3886.0	3899.0	3912.0
7.8	3925.0	3938.0	3951.0	3964.0	3977.0	3990.0	4003.0	4016.0	4029.0	4042.0
7.9	4055.0	4068.0	4081.0	4094.0	4107.0	4120.0	4133.0	4146.0	4159.0	4172.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
8.0	4185.0	4198.5	4212.0	4225.5	4239.0	4252.5	4266.0	4279.5	4293.0	4306.5
8.1	4320.0	4334.0	4348.0	4362.0	4376.0	4390.0	4404.0	4418.0	4432.0	4446.0
8.2	4460.0	4474.0	4488.0	4502.0	4516.0	4530.0	4544.0	4558.0	4572.0	4586.0
8.3	4600.0	4614.0	4628.0	4642.0	4656.0	4670.0	4684.0	4698.0	4712.0	4726.0
8.4	4740.0	4754.0	4768.0	4782.0	4796.0	4810.0	4824.0	4838.0	4852.0	4866.0
8.5	4880.0	4894.0	4908.0	4922.0	4936.0	4950.0	4964.0	4978.0	4992.0	5006.0
8.6	5020.0	5034.0	5048.0	5062.0	5076.0	5090.0	5104.0	5118.0	5132.0	5146.0
8.7	5160.0	5174.0	5188.0	5202.0	5216.0	5230.0	5244.0	5258.0	5272.0	5286.0
8.8	5300.0	5314.0	5328.0	5342.0	5356.0	5370.0	5384.0	5398.0	5412.0	5426.0
8.9	5440.0	5454.0	5468.0	5482.0	5496.0	5510.0	5524.0	5538.0	5552.0	5566.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
9.0	5580.0	5022.0	4464.0	3906.0	3348.0	2790.0	2232.0	1674.0	1116.0	558.0
9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

WHITE RIVER BELOW ASPHALT WASH NEAR WATSON-UTAH
TABLE NO. 6 8/01/80
DISCHARGE--CFS

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
2.0	37.0	37.5	38.0	38.5	39.0	39.5	40.0	40.5	41.0	41.5
2.1	42.0	42.6	43.2	43.8	44.4	45.0	45.6	46.2	46.8	47.4
2.2	48.0	48.6	49.2	49.8	50.4	51.0	51.6	52.2	52.8	53.4
2.3	54.0	54.8	55.6	56.4	57.2	58.0	58.8	59.6	60.4	61.2
2.4	62.0	62.8	63.6	64.4	65.2	66.0	66.8	67.6	68.4	69.2
2.5	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
2.6	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
2.7	90.0	91.0	92.0	93.0	94.0	95.0	96.0	97.0	98.0	99.0
2.8	100.0	102.0	104.0	106.0	108.0	110.0	112.0	114.0	116.0	118.0
2.9	120.0	122.0	124.0	126.0	128.0	130.0	132.0	134.0	136.0	138.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
3.0	140.0	143.0	146.0	149.0	152.0	155.0	158.0	161.0	164.0	167.0
3.1	170.0	173.0	176.0	179.0	182.0	185.0	188.0	191.0	194.0	197.0
3.2	200.0	203.0	206.0	209.0	212.0	215.0	218.0	221.0	224.0	227.0
3.3	230.0	234.0	238.0	242.0	246.0	250.0	254.0	258.0	262.0	266.0
3.4	270.0	274.0	278.0	282.0	286.0	290.0	294.0	298.0	302.0	306.0
3.5	310.0	315.0	320.0	325.0	330.0	335.0	340.0	345.0	350.0	355.0
3.6	360.0	365.0	370.0	375.0	380.0	385.0	390.0	395.0	400.0	405.0
3.7	410.0	415.0	420.0	425.0	430.0	435.0	440.0	445.0	450.0	455.0
3.8	460.0	465.0	470.0	475.0	480.0	485.0	490.0	495.0	500.0	505.0
3.9	510.0	515.0	520.0	525.0	530.0	535.0	540.0	545.0	550.0	555.0

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
4.0	560.0	565.5	571.0	576.5	582.0	587.5	593.0	598.5	604.0	609.5
4.1	615.0	620.5	626.0	631.5	637.0	642.5	648.0	653.5	659.0	664.5
4.2	670.0	675.5	681.0	686.5	692.0	697.5	703.0	708.5	714.0	719.5
4.3	725.0	730.5	736.0	741.5	747.0	752.5	758.0	763.5	769.0	774.5
4.4	780.0	785.5	791.0	796.5	802.0	807.5	813.0	818.5	824.0	829.5
4.5	835.0	841.5	848.0	854.5	861.0	867.5	874.0	880.5	887.0	893.5
4.6	900.0	906.5	913.0	919.5	926.0	932.5	939.0	945.5	952.0	958.5
4.7	965.0	971.5	978.0	984.5	991.0	997.5	1004.0	1010.5	1017.0	1023.5
4.8	1030.0	1036.5	1043.0	1049.5	1056.0	1062.5	1069.0	1075.5	1082.0	1088.5
4.9	1095.0	1101.5	1108.0	1114.5	1121.0	1127.5	1134.0	1140.5	1147.0	1153.5

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
5.0	1160.0	1167.5	1175.0	1182.5	1190.0	1197.5	1205.0	1212.5	1220.0	1227.5
5.1	1235.0	1242.5	1250.0	1257.5	1265.0	1272.5	1280.0	1287.5	1295.0	1302.5
5.2	1310.0	1317.5	1325.0	1332.5	1340.0	1347.5	1355.0	1362.5	1370.0	1377.5
5.3	1385.0	1392.5	1400.0	1407.5	1415.0	1422.5	1430.0	1437.5	1445.0	1452.5
5.4	1460.0	1467.5	1475.0	1482.5	1490.0	1497.5	1505.0	1512.5	1520.0	1527.5
5.5	1535.0	1543.5	1552.0	1560.5	1569.0	1577.5	1586.0	1594.5	1603.0	1611.5
5.6	1620.0	1628.5	1637.0	1645.5	1654.0	1662.5	1671.0	1679.5	1688.0	1696.5
5.7	1705.0	1713.5	1722.0	1730.5	1739.0	1747.5	1756.0	1764.5	1773.0	1781.5
5.8	1790.0	1798.5	1807.0	1815.5	1824.0	1832.5	1841.0	1849.5	1858.0	1866.5
5.9	1875.0	1883.5	1892.0	1900.5	1909.0	1917.5	1926.0	1934.5	1943.0	1951.5

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

VTN ENVIRONMENTAL DIVISION
GEOSCIENCE DEPARTMENT
DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 09306700

Discharge measurements of White River below Asphalt Wash, during the year ending Sept. 30, 19 80

No.	Date	Made by	Width	Area	Mean velocity	Gauge height	Discharge	Rating #5 Shift adj.	Rating #5 Percent diff.	Method	Number meas. sections	Gauge height change	Time	Meas. rated	Temp. Air	Temp. H_2O	REMARKS
			Feet	Sq. ft.	Fps	Feet	Cfs	Feet				Feet	Hr.				
171	OCT 15	B. HALE	66	178	2.06	3.37	368	+.19		.6 .2/.8	26	0	1.0	F	17.0	11.0	CONTROL OPEN CABLE MEASUREMENT
172	NOV 02	"	64	190	2.07	3.47	394	+.15			29	0	1.17	F	5.4	1.8	CONTROL OPEN CABLE MEASUREMENT
173	NOV 15	"	(REGULAR	VISIT)		3.45	385e	+.15									STARTED HEATER IN WELL, ICE IN CHANNEL
174	DEC 03	"	"		"		284e	+.15									COULD NOT MEASURE BECAUSE OF UNSAFE ICE SOME ICE FORMED
175	DEC 13	"	66	153	2.36	3.57	362	-.03		.6 .2/.8	27	+.06	1.17	F	-5.0	-.05	15% ICE COVER CENTER 50% ICE COVER OPEN pH = 4.6 D.O. = 4.5
176	JAN 07	"	63	161	2.48	3.84	401	-.20		.6 .2/.8	22	0	1.0	F	-1.8	.01	92% ADJUSTMENT FOR ICE COVER
177	FEB 05	"	(VISIT)			4.00									-10	0	COULD NOT MEASURE ICE DRILL WOULD NOT RUN
178	FEB 07	"	66	185	2.22	3.83	412	-.16		.6 .2/.8	23	+.01	1.17	F	1.8	0.0	CONTROL 75% ICE COVERED AT CABLE 100% ICE
179	FEB 29	"	72	243	3.03	4.14	737	R. TABLE #6 +.18		.6 .2/.8	25	+.06	1.17	F	4.2	1.0	NO ICE CABLE MEAS. STATION DAMAGED
180	MAR 07	"	71	236	2.83	4.06	670	+.14		.6 .4/.8	32	-.02	1.17	F	4.4	1.4	NO ICE CABLE MEAS.
181	MAR 11	"	(VISIT)			3.70										4.5	IS. GAGE INTACT NO ICE TUCK SEDIMENT
182	MAR 20	"	67	205	2.17	3.57	446	+.20		.6 .2/.8	29	-.03	1.17	F	8.0	6.3	CABLE MEAS. TUCK SEDIMENT D.O. = 10.6 pH = 8.3
183	APRIL 03	"	67	189	2.16	3.53	409	+.17		.6 .2/.8	30	+.02	1.08	F	3.2	6.6	CABLE MEAS. ISO' UPSTREAM GAGE TUCK SEDIMENT D.O. = 3.6 pH = 6.2
184	APRIL 15	"	68	202	2.22	3.58	448	+.20		.6 .2/.8	30	+.01	1.0	F	18.0	11.6	CABLE MEAS. pH = 8.0 D.O. = 6.0 KIT & EGGS 200 FT DOWNSTREAM
185	MAY 01	"	78	337	3.74	4.93	1261	+.20		.6 .4/.8	31	+.06	1.17	G	19.0	13.0	CABLE MEAS. D.O. = 9.0 COND. = 550 TUCK SEDIMENT
186	MAY 12	"	79	472	4.61	6.07	2177	+.16		.6 .4/.8	28	+.05	1.42	F	10.2	10.5	CABLE MEAS. D.O. = 9.0 TUCK SEDIMENT SAMP.
187	MAY 19	"	79	438	4.11	5.67	1802	+.14		.6 .2/.8	28	+.03	1.17	F	23.2	14.0	CABLE MEAS. D.O. = 6.0 COND = 630 TUCK SEDIMENT SAMP.
188	MAY 28	"	79	546	4.56	6.37	2492	+.18		.6 .2/.8	27	-.04	1.17	F	20.5	11.8	CABLE MEAS. CONTROL OPEN
189	JUNE 04	"	(VISIT)			6.27	2302	+.09									PULLED TAPES, TUCK SEDIMENT SAMPLE
190	JUNE 09	"	81	549	4.77	6.77	2704	+.01		.6 .2/.8	27	-.03	1.42	F	17.5	13.5	CABLE MEAS., TUCK SEDIMENT SAMPLE CONTROL OPEN

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S-11

VTN ENVIRONMENTAL DIVISION
GEOSCIENCE DEPARTMENT
DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 09306100

Discharge measurements of White River below Asphalt Wash, during the year ending Sept. 30, 1980

Rating A-6

No.	Date	Made by	Width	Area	Mean velocity	Gauge height	Discharge	Shift adj.	Percent diff.	Method	Number meas. sections	Gauge height change	Time	Meas. rated	Temp. Air	Temp. H_2O	REMARKS
			Feet	Sq. ft.	Fps	Feet	Cfs	Feet				Feet	Hr.				
191	JUNE 20	B. HALE	83.5	592	3.93	6.08	2328	+.31		.6 .2/.8	28	+.01	1.25	P	16.5	17.0	CABLE MEAS. CHANNEL BAR SHIFTED TO UPSTREAM SIDE
192	JUNE 25	"	82.5	467	3.81	5.56	1780	+.23		.6 .2/.8	28	+.01	1.17	F	34.0	19.4	
193	JULY 03	"	82.0	395	3.49	4.99	1378	+.30		.6 .2/.8	29	0	1.17	F	21.8	20.6	
194	JULY 14	"	78.0	268	2.33	3.94	625	+.18		.6 .2/.8	31	0	1.17	F	26.8	21.7	
195	JULY 29	"	75.0	218	1.74	3.79	379	+.15		.6 .2/.8	25	0	1.0	F	23	21.5	
196	AUG 11	"	75.0	192	1.62	3.38	312	+.12		.6 .2/.8	31	0	1.17	F	34.0	24.0	
197	SEPT 02	"	73.0	206	1.71	3.48	353	+.03		.6 .2/.8	30	-.01	1.17	F	25.0	16.1	
198	SEPT 15	"	74.0	212	1.84	3.57	391	+.10		.6 .2/.8	31	-.02	1.17	F	13.0	16.0	

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FORM 9-
Rev. 11-69)

TEMPERATURE #28

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)
DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 09306700

Discharge measurements of WHITE RIVER BELOW ASPHALT WASH during the year ending Sept. 30, 19 82

No.	Date	Made by—	Width	Area	Mean velocity	Gage height	Discharge	Rating: Shift adj.	Rating: % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. con.	PZF	REMARKS
MM/DD/YR./HR.			Feet	Sq ft	Fps	DIAL Feet	FIELD Cfs	Feet				Feet	Hr		°C				
7/14/80	1215					1435	22.0	+.3		+5									
7/29/80	0945					1432	21.5	-.1		-2									
8/11/80	1000					1481	24.0	0		0									
8/25/80	1530					1384	19.2	0		0									
9/2/80	1245					1379	18.9	0		0									
9/15/80	1000					1317	15.8	0		0									
9/18/80	1115					1336	16.8	0		0									

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TEMPERATURE ÷ 10

FORM 9-
Rev. 11-5

UNITED STATES DEPARTMENT OF THE INTERIOR

Station No. 09306700

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)
DISCHARGE MEASUREMENT SUMMARY SHEET

Discharge measurements of WHITE RIVER BELOW ASPHALT WASH during the year ending Sept. 30, 19 80

No	Date	Made by—	Width	Area	Mean velocity	Gage height	Discharge	Rating — Shift adj.	Rating — % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. con.	PZF	REMARKS
M/D/Yr/Hr.			Feet	Sq ft	Fps	Dial Feet	FIELD Cfs	Feet				Feet	Hr		°C				
10/5/79/0930						1234	11.6	-.1		-1									
10/15/79/1130						1211	10.8	+.3		+5									
11/02/79/1245						1046	2.3	0		0									
11/15/79/1030						✓0992	-.03	0		-									
12/3/79/1105						1004	.2	.0		0									
12/6/79/1015						✓0987	-.1	-0		0									
1/7/80/1245						✓0985	-.1	0		0									
2/5/80/1115						✓0989	.0	0		0									
3/11/80/1300						1091	4.5	0		0									
3/13/80/1130						1084	4.1	-.1		-1									
3/20/80/1100						1128	6.3	-.1		-1									
4/3/80/1430						1139	7.0	+.05		+1									
4/15/80/1130						1232	11.5	-.0		0									
5/1/80/1330						1299	14.8	-.1		-1									
6/3/80/0845						1268	13.5	+.1		+2									
6/25/80/1600						1389	19.2	-.2		-5									
7/3/80/1045						1437	20.5	-.3		-26									

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(Rev. May 1971)

Daily TEMPERATURE IN CENTIGRADE 09306700

At Near WHITE RIVER BLW. ASPHALT WASH for the Year Ending September 30, 1980

Drainage Area ..... Square Miles. Water-Stage Recorder ..... Ratio ..... : .....

Day	October Temperature	Shift	November Temperature	Shift	December Temperature	Shift	January Temperature	Shift	February Temperature	Shift	March Temperature	Shift	Day
1			2.8	+.1 2.9	.0	.0	.0	.0	.0	.0	a		1
2			2.6	0 2.6		.0		.0	.0	.0			2
3			1.9	1.9		0 .0	ICE	.0	.0	.0			3
4			2.1	2.1		.0		.0	.0	.0			4
5	14.5	+.1 14.4	2.1	2.1		.0		.0	.0	0 .0			5
6	13.7	+.1 13.6	2.4	2.4	ICE	0 .0		.0	.0	.0			6
7	13.8	+.1 13.9	2.6	2.6		.0	.0	0 .0	.0	.0			7
8	13.6	+.1 13.7	2.9	2.9		.0		.0	.0	.0			8
9	12.9	+.2 13.1	3.4	3.4		.0		.0	.0	.0			9
10	12.1	+.2 12.3	2.9	2.9		.0		.0	.0	.0	a		10
11	11.9	+.2 12.1	3.0	3.0		.0		.0	.0	.0	5.1	0 5.1	11
12	12.1	+.3 12.4	2.1	2.1		.0	ICE	.0	.0	.0	4.8	4.8	12
13	12.2	+.3 12.5	1.3	1.3	.0	.0		.0	.0	.0	4.5	+.1 4.4	13
14	11.9	+.3 12.2	.0	.0		.0		.0	.0	.0	6.1	6.0	14
15	11.5	+.3 11.8	.0	0 .0		.0		.0	a		6.1	6.0	15
16	11.9	+.3 12.2	.0	.0		.0		.0			5.1	5.0	16
17	11.0	+.3 11.3	.0	.0		.0	.0	.0			3.9	3.8	17
18	11.7	+.3 12.0	.0	.0		.0		.0			4.4	4.3	18
19	12.1	+.3 12.4	a			.0		.0			5.9	5.8	19
20	9.7	+.3 10.0	a			.0		.0			7.2	+.1 7.1	20
21	7.8	+.3 8.1	a		ICE	.0		.0			7.6	7.5	21
22	7.0	+.2 7.2	a			.0		.0			7.4	7.3	22
23	6.8	+.2 7.0	a			.0		.0			7.5	7.4	23
24	6.9	+.2 7.1	a			.0	ICE	.0			7.4	7.3	24
25	7.5	+.2 7.7	a			.0		.0			6.0	5.9	25
26	8.0	+.2 8.2	a			.0		.0			6.0	5.9	26
27	8.1	+.2 8.3	a			.0		.0			5.5	+.1 5.4	27
28	7.4	+.1 7.5	a			.0		.0			a		28
29	7.0	+.1 7.1	a			.0		.0	a		a		29
30	5.6	+.1 5.7	a			.0		.0			a		30
31	4.0	+.1 4.1			.0	.0	.0	.0			a		31
Total													
Mean													
Maximum													
Minimum													
Inches													

LAST PROBE; NO RECORD

LAST PROBE; NO RECORD

River
Creek

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

S-11

Station Number [illegible]

Used rating table dated _____

Gage Read to _____ Once / Twice a Day by _____

Gage heights used to half tenths between _____ and _____ ft.
hundredths below and tenths above these limits.

Day	April		May		June		July		August		September		Day	Fourth	Third	Second	First	Quarter	Computed	Checked
	Temperature		Temperature		Temperature		Temperature		Temperature		Temperature									
1	a		13.8	13.7	13.9	14.0	20.9	20.6	24.3	24.3	18.0	18.0	1							
2	a		14.2	14.1	12.7	13.8	20.9	20.6	24.7	24.7	18.5	18.5	2							
3	6.4	6.5	14.6	14.5	13.4	13.5	21.3	21.0	23.4	23.4	19.1	19.1	3							
4	7.4	7.5	15.6	15.5	14.8	14.9	21.2	20.9	21.7	21.7	19.7	19.7	4							
5	9.0	9.1	15.9	15.8	15.4	15.5	21.4	21.4	22.2	22.2	20.	20.	5							
6	8.8	8.9	15.3	15.2	15.4	15.5	21.7	21.8	23.0	23.0	20.5	20.5	6							
7	7.4	7.5	14.9	14.8	15.5	15.6	21.6	21.7	23.8	23.8	19.8	19.8	7							
8	6.4	6.5	14.2	14.1	15.9	16.0	22.1	22.2	24.3	24.3	18.6	18.6	8							
9	8.0	8.0	13.1	13.0	16.4	16.5	21.6	21.8	24.6	24.6	18.4	18.4	9							
10	9.6	9.6	12.6	12.5	16.8	16.7	23.7	23.9	23.7	23.7	17.8	17.8	10							
11	7.9	7.9	11.9	11.8	17.1	17.0	23.6	23.8	22.9	22.9	17.2	17.2	11							
12	6.9	6.9	10.9	10.8	16.7	16.6	23.4	23.7	22.2	22.2	17.4	17.4	12							
13	7.5	7.5	10.2	10.1	16.1	16.0	23.1	23.4	22.2	22.2	18.2	18.2	13							
14	9.5	9.5	10.7	10.6	15.6	15.5	20.8	21.1	23.3	23.3	17.7	17.7	14							
15	11.0	16.0	11.8	11.7	15.5	15.4	21.9	21.9	23.2	23.2	17.9	17.9	15							
16	11.4	11.4	13.1	13.0	15.8	15.7	22.9	22.9	21.0	21.0	18.1	18.1	16							
17	11.9	11.9	12.7	12.6	16.5	16.4	23.8	23.8	21.0	21.0	17.3	17.3	17							
18	12.7	12.7	12.0	11.9	17.5	17.4	24.2	24.2	20.6	20.6	17.5	17.5	18							
19	13.4	13.4	13.8	13.9	18.3	18.2	24.5	24.5	18.2	18.2	17.2	17.2	19							
20	14.1	14.1	15.5	15.6	18.6	18.4	24.0	24.0	17.5	17.5	16.7	16.7	20							
21	13.7	13.7	16.6	16.7	18.2	18.0	24.4	24.4	18.9	18.9	16.3	16.3	21							
22	13.6	13.6	16.7	16.8	18.3	18.1	24.3	24.2	19.4	19.4	15.3	15.3	22							
23	13.6	13.6	16.0	16.1	18.3	18.1	24.5	24.4	19.9	19.9	14.7	14.7	23							
24	12.9	12.9	13.9	14.0	18.2	18.0	23.9	23.8	19.6	19.6	14.7	14.7	24							
25	12.6	12.9	11.3	11.4	18.8	18.6	23.8	23.7	18.4	18.4	14.5	14.5	25							
26	13.2	13.2	10.3	10.4	19.3	19.2	23.9	23.8	17.3	17.3	14.7	14.7	26							
27	14.0	13.9	11.6	11.7	19.4	19.3	24.0	23.9	19.2	19.2	15.4	15.4	27							
28	15.0	14.9	12.9	13.0	19.5	19.3	23.8	23.7	19.6	19.6	15.9	15.9	28							
29	15.0	14.9	14.2	14.3	20.6	20.4	23.9	23.8	18.9	18.9	16.0	16.0	29							
30	13.5	13.4	14.5	14.6	21.6	21.4	23.9	23.9	18.2	18.2	15.9	15.9	30							
31			13.9	14.0			24.1	24.1	17.6	17.6			31							

Period
Year

Quarter	Discharge applied	Discharge checked

Quarter	G. H. copied	G. H. checked

CONDUCTANCE

FORM 9-
Rev. 11-

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)

DISCHARGE MEASUREMENT SUMMARY SHEET

Station 09306700

Discharge measurements of WHITE RIVER below BITTER CREEK 2X during the year ending Sept. 30, 19 80

No.	Date (M/D/YR/HR)	Made by—	Width (Feet)	Area (Sq ft)	Mean velocity (Fps)	Gage height DIRK (Feet)	Discharge FIELD (Cfs)	Rating: Shift adj. (Feet)	Rating: % diff.	Method	Number meas. sections	Gage height change (Feet)	Time (Hr)	Meas. rated	Temperature WATER (°C)	Temperature AIR (°C)	Time of temperature	Sp. cond.	PZF	REMARKS
	10/5/79/0930					14.15	820	-.05		-10										
	10/15/79/1145					1396	790	-.01		-2										
	11/02/79/1245					1303	610	+.02		+4										
	11/15/79/1030					1321	600	-.21		-42										
	12/03/79/1145					1460	920	0		0										
	12/06/79/1945					1486	940	-.16		-32										
	12,13,79,2315					1356	720	+.04		+20										
	1,07,80,1245					1265	560	+.15		+30										
	2,07,80,1115					1416	840	+.04		+8										
	2,07,80,1400					1372	750	+.03		+6										
	3,11,80,1300					1479	950	-.04		-8										
	3,13,80,1145					1494	1000	+.06		+12										
	3,20,80,1130					1489	990	+.06		+12										
	4,3,80,1445					1511	1,000	-.11		-22										
	4,11,80,0845					1524	1,030	-.09		-18										
	4,14,80,1200					1519	1,040	+.01		+2										
	5,1,80,1330					1493	580	-.03		-6										

Copied by ..... Computed by ..... Checked by .....

CONDUCTANCE

FORM 9-207
(Rev. 11-69)

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)
DISCHARGE MEASUREMENT SUMMARY SHEET

Station No. 306700

Discharge measurements of WHITE River below Asphalt Wash at 2X during the year ending Sept. 30, 19 80

No.	Date	Made by—	Width	Area	Mean velocity	Gage height DIAL	Discharge FIGS	Rating: Shift adj.	Rating: % diff.	Method	Number meas. sections	Gage height change	Time	Meas. rated	Temperature WATER / AIR	Time of temperature	Sp. con.	PZF	REMARKS
			Feet	Sq ft	Fps	Feet	Cfs	Feet				Feet	Hr		°C				
5	12, 80,	1245				1268	540	+.02		+4									
5	28, 80,	1230				1171	480	+.69		+138									
6	04, 80,	1000				1207	420	+.03		+6									
6	09, 80,	1230				1163	375	+.25		+50									
6	19, 80,	1130				1152	375	+.36		+72									
6	25, 80,	1330				1197	400	+.03		+6									
7	29, 80,	0945				1404	800	-.04		-8									
8	11, 80,	1345				1432	860	+.02		+4									
9	02, 80,	0930				1334	880	+1.06		+212									
9	15, 80,	1000				1442	880	+.02		+4									
9	18, 80,	1130				1408	790	-.13		-26									
10	6, 80,	1245				1415	4100	-.05		-10									

Copied by ..... Computed by ..... Checked by .....

Rev. May 1971

Daily CONDUCTIVITY IN MICRO-MHOS PER CENTIMETER 09306700

At White River blw Asphalt W for the Year Ending September 30, 1980

Drainage Area ..... Square Miles. Water-Stage Recorder ..... Ratio ..... : .....

Day	October		November		December		January		February		March	
	Conductivity		Conductivity		Conductivity		Conductivity		Conductivity		Conductivity	
1	"	0	632	+ 636	b		a		620	+ 622	b	
2		0	615	+ 619	b		a		623	+ 633		
3		0	601	+ 605	718	0 718	a		617	+ 627		
4		0	610	+ 613	937	+ 927	a		615	+ 624		
5	762	- 753	615	+ 618	696	- 675	a		802	+ 811		
6	800	- 791	597	+ 599	938	- 906	a		745	+ 753		
7	795	- 787	591	+ 593	807	+ 811	529	+ 559	745	+ 753		
8	795	- 787	582	+ 583	648	+ 652	528	+ 557	737	0 737		
9	788	- 782	581	0 581	604	+ 611	524	+ 552	732	- 731		
10	787	- 781	585	+ 581	596	+ 606	520	+ 547	344	- 743	b	
11	787	- 782	579	+ 571	589	+ 600	538	+ 564	738	- 736	936	- 928
12	781	- 782	582	+ 565	593	+ 610	544	+ 569	740	- 738	894	- 888
13	786	+ 782	580	- 555	609	+ 629	546	+ 570	737	- 735	904	+ 916
14	785	- 782	575	- 541	489		550	+ 573	726	- 733	908	+ 910
15	770	- 768	605	- 563	a		599	+ 621	739	- 936	880	+ 882
16	664	- 662	618	0 618	a		568	+ 589	b		830	+ 834
17	635	- 633	607	607	a		567	+ 588	b		826	+ 832
18	613	- 611	564	564	a		649	+ 668	b		828	+ 836
19	617	- 616	b		a		667	+ 685	b		689	+ 699
20	610	- 609			a		644	+ 661	b		704	+ 716
21	605	- 604			a		644	+ 660			793	- 791
22	604	0 604			a		646	+ 662			698	- 694
23	598	+ 599			a		648	+ 663			668	- 666
24	602	+ 603			a		655	+ 670			674	- 672
25	579	+ 581			a		656	+ 670			687	- 683
26	617	+ 619			a		669	+ 683			689	- 683
27	633	+ 636			a		646	+ 660			698	- 690
28	639	+ 642			a		622	+ 635			700	- 690
29	644	+ 647			a		618	+ 631			711	- 699
30	643	+ 647			a		625	+ 637			709	- 695
31	640	+ 644			a		620	+ 622			709	- 693
Total												
Mean												
Maximum												
Minimum												

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

5-11

Station Number 09306700

Used in listing table dated Spring 1980

Gage ~~read~~ to ____ Once / Twice a Day by ____

Gage heights used to half tenths between ____ and ____ Interpolation below and tenths above these limits

April		May		June		July		August		September		Day
Conductivity		Conductivity		Conductivity		Conductivity		Conductivity		Conductivity		
696	678	591	585	311	314	a		817	819	880	1082	1
681	667	598	593	303	317	a		824	826	887	1099	2
688	666	616	611	306	311	626		820	822	882	882	3
1034	1032	629	625	349	355	b		830	833	872	871	4
1039	1035	625	622	368	374	b		845	848	868	867	5
1021	1014	617	617	348	360	b		847	850	863	861	6
1055	1045	600	601	334	359	b		848	851	828	826	7
1022	1010	576	578	335	372	b		846	850	845	843	8
1033	1019	539	542	324	374	b		852	856	797	794	9
1042	1027	538	541	317	321	b		863	867	767	764	10
1048	1030	530	534	316	324	b		865	869	754	751	11
1031	1032	546	550	308	324	b		873	875	816	812	12
1039	1041	575	578	299	325	b		845	857	888	884	13
1046	1042	575	587	294	326	701	704	851	879	950	946	14
1038	1037	613	634	305	345	716	709	865	897	912	908	15
1027	1036	613	643	308	356	709	713	905	947	833	826	16
1026	1024	614	653	326	382	710	714	911	963	813	800	17
1004	1002	635	683	344	408	666	671	936	998	801	775	18
968	965	590	647	332	405	651	656	918	990	787	787	19
958	949	561	627	293	294	640	646	861	943	785	784	20
919	916	535	610	291	293	624	630	826	918	786	784	21
959	955	484	568	300	303	613	619	827	929	797	794	22
787	783	440	533	304	308	608	615	918	930	797	793	23
720	716	394	496	358	361	606	613	868	990	782	777	24
686	681	327	438	411	417	608	615	799	931	780	774	25
683	678	299	419	410	411	602	610	1108	1250	778	771	26
682	677	323	452	425	426	598	606	976	1128	783	775	27
670	664	340	478	438	439	a		937	1099	780	771	28
649	643	330	331	440	442	808	816	934	1106	780	770	29
629	626	315	316	291	293	810	811	924	1106	790	780	30
		307	309			716	817	900	1092			31

Quarter: First / Second / Third / Fourth — Computed — Checked

Quarter: First / Second / Third / Fourth — Disch. applied — Disch. checked

Quarter: First / Second / Third / Fourth — G. H. copied — G. H. checked

Period Year

10,6-80

CAMPUS DRIVE, IRVINE CALIFORNIA 92664 (714) 833-2450

JOB NO. 1517-24
JOB TITLE WHITE RIVER
STATE UTAH ZONE C
PAGE 1 OF 3

CONTROL LIST

SUN PHILLIPS PROJECT

STATION	NORTHING	EASTING	ELEVATION MON.	ELEVATION GROUND	DESCRIPTION
G.L.O.S	579018.00	2,674,355.00	—	—	200
U.S.Lm. 12	609 698.62	2,643,748.42	—	—	201
J.E.K. 7	607.128,70	2,618,841.03	—	—	202
ANTELOPE	595,964.75	2,619.976.67	—	—	203
P.P. 1	576,801.00	2,621,485.36	5959.54	5959.59	101
PP 2	576 980.28	2,625 903,50	5162.91	5162.71	102
PP 3	583,087.30	2,626.752,51	5070,48	5069.08	103
PP 4	588,392.10	2,626 ~~716~~ 617.34	5015.00	5014,10	104
PP 5	595 051.78	2,623,979.39	5001.94	5001.14	105
P.P. 6	588 939,02	2,620,698,20	4923,79	4923.39	106
P.P. 7	582 934,88	2,618,596.43	5190.70	5190.70	107
PP 8	601 878.83	2,625,267.87	5500.44	5500.44	108
PP 9	601,665.09	2,636,484.75	5264.84	5264.44	109
PP 10	595,975.52	2,637,278.65	4953.83	4953.83	110
PP 11	589,747.96	2,637,252.38	5231.01	5230.31	111 ~~120~~
PP 12	583,590.32	2.640,750.93	5409.98	5409.68	112 ~~130~~
PP 13	577 337.71	2,637,131.08	5771.00	5769.85	113

US DRIVE, IRVINE CALIFORNIA 92664 (714) 833-2450

CONTROL LIST

JOB NO. 1511-64
JOB TITLE
STATE ZONE

STATION	NORTHING	EASTING	ELEVATION		DESCRIPTION
			MON.	GROUND	
P.P. 14	577028.38	2,648,777,99	6050.54	6050,54	114
PP 15	583,704.17	2,650.029.51	5535.35	5534.35	115
PP 16	590.040.58	2,649,902.87	5641.43	5640.03	116
PP 17	596178.41	2,648.432.08	5270.09	5270.09	117
PP 18	602252.87	2,651848.17	5133.76	5133.76	118
PP 19	607988.08	2,646.843.33	5695.05	5695.05	119
PP 20	613800.74	2,650,520.05	5336.16	5336.06	120
PP 21	614373.48	2,668,026.10	5629.50	5629.00	121
PP 22	608645.86	2,667109.19	5734.48	5734.48	122
PP 23	602215.75	2,665 940 15	5666.85	5665.61	123
PP 24	596,160.68	2,664.667,17	5626,30	5626.30	124
PP 25	590 877.34	2,664504.82	5788.11	5784.38	125
PP 26	584018.27	2,663,811.66	5734.10	5733.80	126
PP 27	577 371.78	2,657.119.29	5324.61	5324.61	127
BM	—	—	5290.20		204
ECC TO BM	601,133,92	2,655,931.06	5361.62		205
PP 27 ECC	576737.98	2,656214.20	5512.60		206

AMPUS DRIVE IRVINE CALIFORNIA 92664 (714) 833-2450

CONTROL LIST

JOB TITLE _____
STATE _____ ZONE ___
PAGE 3 OF 3

STATION	NORTHING	EASTING	ELEVATION MON.	ELEVATION GROUND	DESCRIPTION
V.Z	585835.96	2,634,150.99	—	—	207
T.P. 12A	585539.20	2,641,559.33	—	—	208
DER.	613,123.01	2,647,057.20	—	—	209

All Coordinates are Utah State Plane Coordinates Central Zone, reduced to Mean Sea Level by an Elevation factor of .9997272 and a grid factor of .9999008 for a combined factor of .9996280

FIELDS, LIN AND SCOTT, INCORPORATED
Professional Engineers
1075 VINE STREET • SALT LAKE CITY, UTAH 84121 • (801) 266-1257

WHITE RIVER BELOW ASPHALT WASH

Survey made April, 1980
24

Bench mark	Elevation Gage datum	Elevation Datum, msl	
1	7.256	~~4,812.126~~ 4,863.296	Downstream frame bolt on streamward cantilever outside staff gage pedestal
2	8.317	~~4,813.187~~ 4,864.357	Downstream frame bolt on shoreward cantilever outside staff gage pedestal
3	11.884	~~4,816.754~~ 4,867.924	Bolt set in concrete 30 ft shoreward and 6 ft upstream from cantilever outside gage
4	12.640	~~4,817.510~~ 4,868.680	Top of upstream "U" bar in left bank anchor block for cableway
5	15.875	~~4,820.745~~ 4,871.915	Head of lag bolt in tree 200 ft shoreward and 100 ft downstream from left bank anchor block
6	13.835	~~4,818.705~~ 4,869.875	Head of lag bolt in tree 200 ft shoreward of left bank anchor block

Elevation of gage datum = 4856.040 feet above MSL
(Report as 4856 feet above MSL)

Accuracy of mean sea level elevations is within ~~0.05~~ 2 ft

Corrections made by S.D. Munson.

TO 6100(S-11) TUE, 1980

VTN
Vernal, Utah

Received
6/30/80

TO: Rees Madsen DATE: June 23, 1980

FROM: Bill Hale

RE: Cableway and Power Pole at White River Surface Water Station S-11 (09306700)

As of this date, the upstream side bank has washed out to within 8 feet of the Cable "A" frame and is 12 feet away from the power pole at S-11 site.

The power pole should be moved back about 200 feet. This should be done as soon as possible because it has a buried cable up to the pole.

The cableway should also be removed and reinstalled at a point about 500 feet below the present site. This would put it 200 feet below the manometer house and about 150 feet above the control point of the channel.

I recommend that we hire S & M Electirc to move the power pole and Casada Construction to do the work on the cableway. This will involve some heavy duty work with trucks and possibly a backhoe tractor.

I will contact both S & M Electric and Casada if you approve of this work.

Bill

Bill Hale

BH/nh

cc: Swain Munson

E.D.F

S-11

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

09306744

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River Nr. Grand Valley Computed by BK Checked by

Date		10-15-79				10-15-79						
Time		1230				1230						
Gage height		3.37				3.37						
Sampling Sta.		1 # 60	74	85		2 # 60	74	85				
Temp. & Spec. Cond.		10.5/750	/	/	/	10.5/750	/	/	/	/	/	/
Remarks	Q = 368. cfs		PH = 7.0		D.O. = 8.2							
WEIGHT OF SAMPLE	Gross	607.9	645.8	606.8		582.2	630.4	644.9				
	Tare	369	366	370		373	362	363				
	Net	238.9	279.8	236.8		209.2	268.4	281.9				
Container no.		46	026	57		020	023	58				
WEIGHT OF SEDIMENT	Gross	35.831	36.743	35.830		36.566	36.569	35.524				
	Tare	35.727	36.644	35.750		36.464	36.482	35.448				
	Net	.104	.099	.080		.102	.087	.076				
	D.S. corr.											
	Net											
Conc. (ppm)		435	354	338		488	324	270			=	368

E.D.F

Date		12-13-79				12-13-79						
Time		1315				1315						
Gage height		3.63				3.63						
Sampling Sta.		#1 58	72	84		2 = 58	72	84				
Temp & Spec. Cond.		0 /250	/	/	/	0 /750	/	/	/	/	/	/
Remarks	Q =	362.	cfs	PH =	9.2	D.O	= 9.5					
WEIGHT OF SAMPLE	Gross	611.8	596.6	648.		644.7	536.	627.4				
	Tare	366	363	372		373	372	366				
	Net	245.8	233.6	276.		271.7	164.	261.4				
Container no.		06	13	47		016	021	53				
WEIGHT OF SEDIMENT	Gross	37.034	37.585	34.953		36.707	36.892	34.890				
	Tare	36.958	37.544	34.927		36.659	36.753	34.646				
	Net	.076	.041	.026		.048	.039	.044				
	D.S. corr.											
	Net											
Conc. (ppm)		309	176	94		177	238	168			=	194

EDE

S-11

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

09306700 SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location WHITE RIVER BLW. KOHLER WASH Computed by BB Checked by

Date		9-2-80				9-2-80						
Time		1225				1225						
Gage height		3.47				3.47						
Sampling Sta.		1# 44	65	77		2# 44	65	77				
Temp. & Spec. Cond.		16.1/550	/	/	/	16.1/550	/	/	/	/	/	/
Remarks		C=353	PH=7.5		D.O.=7.0							
WEIGHT OF SAMPLE	Gross	685.8	620.	584.3		631.8	651.	600.5				
	Tare	364	365	362		360	369	373				
	Net	321.8	255.0	222.3		271.8	282.	227.5				
Container no.		36	40	32		61	8	019				
WEIGHT OF SEDIMENT	Gross	35.554	35.795	37.548		37.651	35.347	36.896				
	Tare	35.394	35.643	37.424		37.531	35.197	36.774				
	Net	.160	.152	.124		.120	.150	.122				
	D.S. corr.											
	Net											
Conc. (ppm)		497	596	558		442	532	536		=		527

09306700 White R. EDE

Date		9-15-80				9-15-80						
Time		1215				1215						
Gage height		3.54				3.54						
Sampling Sta.		1# 48	62	78		2# 48	62	78				
Temp. & Spec. Cond.		16.0/580	/	/	/	16.0/580	/	/	/	/	/	/
Remarks		C=391.6		PH=7.5								
WEIGHT OF SAMPLE	Gross	628.1	589.4	621.6		599.7	644.0	575.2				
	Tare	368	366	368		367	370	358				
	Net	250.1	223.4	259.6		232.7	274.	217.2				
Container no.		45	015	33		14	42	25				
WEIGHT OF SEDIMENT	Gross	35.398	36.952	35.911		35.523	35.298	35.618				
	Tare	35.234	36.794	35.769		35.377	35.133	35.500				
	Net	.164	.158	.142		.146	.165	.118				
	D.S. corr.											
	Net											
Conc. (ppm)		586	707	547		627	602	543		=		602

S-11
09306700

E.D.I

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division
SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River below Agency Wash Computed by B.H Checked by

Date		1-7-80				1-7-80						
Time		1330				1330						
Gage height		3.84				3.84						
Sampling Sta.		1# 61	71	79		2# 61	71	79				
Temp. & Spec. Cond.		0 1560	/	/	/	0 1560	/	/	/	/	/	
Remarks		Q= 401. cfs.		pH=9.2								
WEIGHT OF SAMPLE	Gross	631.3	636.4	598.9		645.1	624	645.9				
	Tare	363	366	365		367	374	361				
	Net	268.3	270.4	233.9		278.1	247.0	284.9				
Container no.		017	60	029		021	26	632				
WEIGHT OF SEDIMENT	Gross	37.054	35.828	36.770		36.905	35.440	37.146				
	Tare	37.008	35.789	36.725		36.860	35.403	37.106				
	Net	.046	.039	.045		.045	.037	.040				
	D.S. corr.											
	Net											
Conc. (ppm)		171	144	192		162	150	140			=	160

Date		2-7-80				2-7-80						
Time		1430				1430						
Gage height		3.84				3.84						
Sampling Sta.		1# 58	68	81		2# 58	68	81				
Temp. & Spec. Cond.		0 1750	/	/	/	0 1750	/	/	/	/	/	
Remarks		Q= 412. cfs		pH= 9.4		T.O.=	5.8					
WEIGHT OF SAMPLE	Gross	671.9	682.1	641.		691.2	665.5	653.				
	Tare	368	364	374		367	369	372				
	Net	303.9	318.1	267.		324.2	296.5	281.				
Container no.		34	64	24		63	10	014				
WEIGHT OF SEDIMENT	Gross	35.498	37.493	35.382		37.534	35.498	36.611				
	Tare	35.412	37.412	35.315		37.460	35.423	36.530				
	Net	.086	.081	.067		.074	.075	.081				
	D.S. corr.											
	Net											
Conc. (ppm)		283	255	251		228	253	288			=	260

(See location sheet) E.F. (Crosscheck)

09306100

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White R. blw. Asphalt Wash Computed by BH Checked by

Date		2-29-80				2-29-80					
Time		1310				1310					
Gage height		4.14				4.14					
Sampling Sta.		1/4 58	77	85		2/4 58	77	85			
Temp. & Spec. Cond.		1.0/850	/	/	/	1.0/850	/	/	/	/	/
Remarks		Q = 737.015	PH = 9.2		D.O = 11.8						
WEIGHT OF SAMPLE	Gross	576.8	668.3	653.4		632.2	668.8	624.9			
	Tare	366	365	368		366	369	365			
	Net	210.8	303.3	285.4		267.3	299.8	259.9			
Container no.		14	21	27		027	5	4			
WEIGHT OF SEDIMENT	Gross	35.910	36.307	36.595		37.347	35.724	35.240			
	Tare	35.383	35.494	35.904		36.581	34.967	35.273			
	Net	.527	.813	.691		.766	.757	.567			
	D.S. corr.										
	Net										
Conc. (ppm)		2500	2439	2421		2866	2525	2182		=	2489

Date											
Time											
Gage height											
Sampling Sta.											
Temp. & Spec. Cond.		/	/	/	/	/	/	/	/	/	/
Remarks											
WEIGHT OF SAMPLE	Gross										
	Tare										
	Net										
Container no.											
WEIGHT OF SEDIMENT	Gross										
	Tare										
	Net										
	D.S. corr.										
	Net										
Conc. (ppm)											

UNITED STATES DEPARTMENT OF THE INTERIOR

Geological Survey—Water Resources Division

E.D.F

09306100

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White R. Below Redcliff Wash Computed by BH Checked by

Date		3-7-80				3-7-80						
Time		1330				1330						
Gage height		4.04				4.04						
Sampling Sta.		1 # 58	71	84		2 # 58	71	84				
Temp. & Spec. Cond.		1.0/860	/	/	/	/	/	/	/	/	/	
Remarks Q=		670 cfs	pH = 8.5		D.O. = 9.0							
WEIGHT OF SAMPLE	Gross	609.6	683.8	681.4		651.7	654.2	662.6				
	Tare	368	371	363		367	366	365				
	Net	241.6	312.8	318.4		284.7	288.2	297.6				
Container no.		16	015	36		8	45	40				
WEIGHT OF SEDIMENT	Gross	36.000	37.527	36.119		35.813	35.906	36.300				
	Tare	35.414	36.764	35.396		35.209	35.259	35.638				
	Net	.586	.763	.723		.604	.647	.662				
	D.S. corr.											
	Net											
Conc. (ppm)		2425	2439	2271		2122	2245	2224				2249

F.I.T.

Date		3-11-80				3-11-80						
Time		1330				1330						
Gage height		3.70				3.70						
Sampling Sta.		1 # 58	71	86		2 # 58	71	86				
Temp. & Spec. Cond.		4.5/950	/	/	/	4.5/950	/	/	/	/	/	
Remarks est. Q = 488.												
WEIGHT OF SAMPLE	Gross	651.1	641.6	665.4		665	671.7	613.8				
	Tare	370	366	367		370	361	368				
	Net	281.1	325.6	298.4		295	310.7	245.8				
Container no.		09	56	01		C4	9	028				
WEIGHT OF SEDIMENT	Gross	37.589	36.010	37.631		37.641	36.491	37.267				
	Tare	36.674	35.106	36.731		36.726	35.603	36.423				
	Net	.955	.904	.856		.915	.888	.834				
	D.S. corr.											
	Net											
Conc. (ppm)		3397	2776	2869		3102	2914	3393				3075

F.I.T.

09306700

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White R. blw. Emmett Creek. Computed by BH Checked by

Date		3-20-80				3-20-80						
Time		1230				1230						
Gage height		3.57				3.57						
Sampling Sta.		1 @ 59	71	85		2 @ 59	71	85				
Temp. & Spec. Cond.		6.3/978	/	/	/	6.3/978	/	/	/	/	/	/
Remarks	Q = 446.0 cfs		PH = 8.3		D.O. = 10.0							
WEIGHT OF SAMPLE	Gross	624.1	623.2	667.3		599.4	594.8	661.8				
	Tare	363	361	368		359	363	368				
	Net	261.1	262.2	301.3		240.4	231.8	293.8				
Container no.		55	29	19		42	035	35				
WEIGHT OF SEDIMENT	Gross	35.757	35.675	35.662		35.269	36.668	36.220				
	Tare	35.633	35.536	35.513		35.142	36.514	36.039				
	Net	.124	.139	.149		.127	.154	.181				
	D.S. corr.											
	Net											
Conc. (ppm)		488	530	495		528	664	616		=	554	

Date		4-3-80				4-3-80						
Time		1340				1340						
Gage height		3.53				3.53						
Sampling Sta.		1 @ 59	72	86		2 @ 59	72	86				
Temp. & Spec. Cond.		6.0/1000	/	/	/	/	/	/	/	/	/	/
Remarks	Q = 409 cfs		PH = 7.2		D.O. = 8.0							
WEIGHT OF SAMPLE	Gross	606.5	651.	660.2		651.9	601.	643.7				
	Tare	371	364	365		363	360	367.				
	Net	235.5	289.	295.2		288.9	241.	276.7				
Container no.		03	036	033		59	161	061				
WEIGHT OF SEDIMENT	Gross	36.800	36.798	36.766		35.962	36.610	37.055				
	Tare	36.707	36.616	36.613		35.872	36.533	36.971				
	Net	.093	.182	.153		.090	.077	.084				
	D.S. corr.											
	Net											
Conc. (ppm)		395	630	518		312	320	304		=	413	

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E.D.I

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White R. blw. Nezbart Ln. Computed by BH Checked by

Date		4-11-90				4-11-90						
Time		0930				0930						
Gage height		3.67										
Sampling Sta.		1/4 59	72	86		1/4 59	72	86				
Temp. & Spec. Cond.		9.2/1030	/	/	/	/	/	/	/	/	/	/
Remarks		Q=345.	PH= 7.0									
WEIGHT OF SAMPLE	Gross	710.2	687.3	646.7		663.3	688.8	650.3				
	Tare	365	370	370		367	367	364				
	Net	345.2	317.3	276.7		301.3	321.8	286.3				
Container no.		031	32	017		10	39	037				
WEIGHT OF SEDIMENT	Gross	36.998	37.562	37.114		35.555	35.615	37.213				
	Tare	36.859	37.435	37.008		35.423	35.479	37.107				
	Net	.139	.128	.111		.132	.136	.106				
	D.S. corr.											
	Net											
Conc. (ppm)		403	403	401		438	423	398		=		411

Date		4-15-90				4-15-90						
Time		1415				1415						
Gage height		3.58				3.58						
Sampling Sta.		1/4 59	72	86		1/4 59	72	86				
Temp. & Spec. Cond.		11.5/1040	/	/	/	11.5/1040	/	/	/	/	/	/
Remarks		Q= 448.	PH= 6.0		DO. = 6.0							
WEIGHT OF SAMPLE	Gross	651.5	661.3	662.		636.2	690.3	650.5				
	Tare	362	371	357		362	364	370				
	Net	295.5	290.3	305.0		274.2	326.3	280.5				
Container no.		13	H9	52		016	24	57				
WEIGHT OF SEDIMENT	Gross	37.673	36.558	35.855		36.772	35.444	35.842				
	Tare	37.544	36.448	35.755		36.659	35.314	35.748				
	Net	.129	.110	.100		.113	.130	.094				
	D.S. corr.											
	Net											
Conc. (ppm)		437	379	329		412	398	335		=		382

(S-11) E.D.I

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

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SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River Glen. Aspokastle. Computed by BH Checked by

Date		5-12-80				5-12-80						
Time		1245										
Gage height		6.12										
Sampling Sta.		1# 56	68	85		2# 56	68	85				
Temp. & Spec. Cond.		10.5/548	/	/	/	/	/	/	/	/	/	/
Remarks		Q = 2177 cfs		PH = 8.6		D.O. = 9.0						
WEIGHT OF SAMPLE	Gross	730.4	737.1	681.9		739.0	208.2	744.1				
	Tare	369	370	361		362	368	359				
	Net	361.4	367.1	320.9		377.0	340.2	385.1				
Container no.		010	23	021		022	61	60				
WEIGHT OF SEDIMENT	Gross	39.457	37.636	38.869		39.100	39.624	38.260				
	Tare	36.939	35.336	36.850		36.657	37.538	35.784				
	Net	2.518	2.300	2.019		2.443	2.086	2.476				
	D.S. corr.											
	Net											
Conc. (ppm)		6967	6265	6292		6480	6132	6429		=		6428

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Date		5-15-80				5-15-80						
Time		1030										
Gage height		5.65										
Sampling Sta.		1# 56	68	85		2# 56	68	85				
Temp. & Spec. Cond.		11.1/625	/	/	/	/	/	/	/	/	/	/
Remarks		est. Q = 1920 cfs		PH = 7.0								
WEIGHT OF SAMPLE	Gross	684.8	684.2	706.4		707.1	688.8	727.9				
	Tare	363	364	368		372	368	365				
	Net	321.8	320.2	338.4		335.1	320.8	362.9				
Container no.		34	21	024		66	025	023				
WEIGHT OF SEDIMENT	Gross	37.072	37.532	38.732		37.078	38.972	38.270				
	Tare	35.419	35.816	37.073		35.356	37.075	36.475				
	Net	1.653	1.716	1.659		1.722	1.897	1.795				
	D.S. corr.											
	Net											
Conc. (ppm)		5137	5359	4902		5139	5913	4946		=		5233

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E.D.I

09306700

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White R. Hwy 70 near Fort Lupton

Computed by BH Checked by

Date		5-19-80				5-19-80						
Time		1300				1300						
Gage height		5.67				5.67						
Sampling Sta.		1# 54	69	85		2# 54	69	85				
Temp. & Spec. Cond.		14.0/630	/	/	/	/	/	/	/	/	/	/
Remarks		Q = 1802 cfs		DH = 8.5		D.O. = 6.0						
WEIGHT OF SAMPLE	Gross	715.3	726.5	615.8		665.1	704.3	661.1				
	Tare	368	364	363		368	358	369				
	Net	347.3	362.5	252.8		297.1	346.3	292.1				
Container no.		05	50	47		26	53	46				
WEIGHT OF SEDIMENT	Gross	38.200	37.402	36.066		36.735	36.355	37.002				
	Tare	36.659	35.730	34.947		35.405	34.841	35.727				
	Net	1.541	1.672	1.119		1.330	1.514	1.775				
	D.S. corr.											
	Net											
Conc. (ppm)		4437	4612	4426		4477	4372	6077				4734

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Date		5-22-80				5-22-80						
Time		1000				1000						
Gage height		6.06										
Sampling Sta.		1# 56	68	85		2# 56	68	85				
Temp. & Spec. Cond.		—/—	/	/	/	/	/	/	/	/	/	/
Remarks		est. Q = 2178										
WEIGHT OF SAMPLE	Gross	711.3	663.9	724.0		644.1	656.7	698.0				
	Tare	371	370	367		371	365	369				
	Net	340.3	293.9	357.0		273.1	291.7	329.0				
Container no.		08	54	44		64	013	019				
WEIGHT OF SEDIMENT	Gross	38.133	36.400	38.296		37.529	37.944	38.137				
	Tare	36.746	35.183	36.807		37.417	36.743	36.780				
	Net	1.387	1.217	1.489		1.112	1.201	1.357				
	D.S. corr.											
	Net											
Conc. (ppm)		4076	4141	4113		4101	4117	4124				4112

EDF

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09306700

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division
SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River blw. Asotin Ck. Computed by BH Checked by

Date		5-28-80				5-28-80						
Time		1230				1000						
Cage height		6.39				6.39						
Sampling Sta.		1# 51	68	82		2# 51	68	82				
Temp. & Spec. Cond.		11.8/470	/	/	/	/	/	/	/	/	/	
Remarks		Q=2492 cfs		TH=8.5	D.O.	=8.0						
WEIGHT OF SAMPLE	Gross	696.1	746.9	643.5		641.6	704.9	704.3				
	Tare	371	370	371		368	365	367				
	Net	325.1	376.9	272.5		273.6	339.9	337.3				
Container no.		35	8	40		011	09	036				
WEIGHT OF SEDIMENT	Gross	37.446	36.537	36.524		38.267	37.852	37.934				
	Tare	36.063	35.203	35.671		36.981	36.656	36.717				
	Net	1.383	1.334	.853		1.286	1.196	1.217				
	D.S. corr.											
	Net											
Conc. (ppm)		4254	3539	3130		4700	3519	3609				3792

5-11 09306700

Date		6-4-80				6-4-80						
Time		1000				1000						
Cage height		6.27				6.27						
Sampling Sta.		1# 51	68	82		2# 51	68	82				
Temp. & Spec. Cond.		13.5/420	/	/	/	13.5/420	/	/	/	/	/	
Remarks		Q=2384 cfs		PH=								
WEIGHT OF SAMPLE	Gross	749.2	731.9	676.1		667.2	675.3	631.3				
	Tare	368	364	362		367	367	355				
	Net	381.2	367.9	314.1		305.2	308.3	276.5				
Container no.		27	03	56		55	19	59				
WEIGHT OF SEDIMENT	Gross	36.688	37.453	35.703		36.125	36.068	36.428				
	Tare	35.929	36.730	35.093		35.630	35.502	35.888				
	Net	.759	.723	.610		.495	.566	.540				
	D.S. corr.											
	Net											
Conc. (ppm)		1991	1915	1942		1627	1836	1953		=		1895

S-11

09306700

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UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River Obs. Arahait Wash Computed by BH Checked by

Date		6-9-80				6-9-80						
Time		1220				1220						
Gage height		6.77				6.77						
Sampling Sta.		1# 51	65	84		2# 151	65	84				
Temp. & Spec. Cond.		16.0/375	/	/	/	/	/	/	/	/	/	/
Remarks		Q = 2704 cfs		PH = 8.0	D.O. = 8.0							
WEIGHT OF SAMPLE	Gross	679.9	641.0	675.2		693.2	679.4	671.5				
	Tare	362	364	366		365	372	369				
	Net	317.9	283.0	309.2		328.3	307.4	302.5				
Container no.		42	028	101		033	027	5				
WEIGHT OF SEDIMENT	Gross	35.942	37.432	37.392		37.492	37.334	35.787				
	Tare	35.143	36.772	36.543		36.687	36.638	34.965				
	Net	.799	.760	.849		.805	.696	.822				
	D.S. corr.											
	Net											
Conc. (ppm)		2513	2686	2746		2452	2264	2717			=	2563

S-11 09306700

Date		6-13-80				6-13-80						
Time		1045				1045						
Gage height		7.08				7.08						
Sampling Sta.		1# 51	65	84		2# 51	65	84				
Temp. & Spec. Cond.		15.2/350	/	/	/	15.2/350	/	/	/	/	/	/
Remarks		est. Q = 3,032 cfs										
WEIGHT OF SAMPLE	Gross	676.9	681.0	662.5		667.8	731.7	722.2				
	Tare	364	366	367		364	368	370				
	Net	312.9	321.0	296.3		303.2	363.7	352.2				
Container no.		29	9	31		41	14	035				
WEIGHT OF SEDIMENT	Gross	36.212	36.227	35.984		35.926	36.026	37.221				
	Tare	35.542	35.596	35.489		35.262	35.382	36.552				
	Net	.670	.631	.500		.664	.644	.669				
	D.S. corr.											
	Net											
Conc. (ppm)		2141	1966	1687		2190	1771	1899				1942

S-11
09306700

E.D.E

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River Nr. Redbird, Computed by BH Checked by

Date		6-20-80				6-20-80						
Time		1110				1110						
Gage height		6.08				6.08						
Sampling Sta.		1# 49	56	78		2# 49	56	78				
Temp. & Spec. Cond.		17.8/300	/	/	/	17.8/300	/	/	/	/	/	
Remarks	Q =	2328.	PH =									
WEIGHT OF SAMPLE	Gross	681.8	747.1	672.8		676.5	729.4	643.2				
	Tare	361	365	367		364	369	364				
	Net	320.8	382.1	315.8		312.5	360.4	279.2				
Container no.		030	04	013		46	012	63				
WEIGHT OF SEDIMENT	Gross	37.398	37.131	37.334		36.613	37.324	37.048				
	Tare	36.848	36.529	36.743		35.727	36.579	36.460				
	Net	.550	.602	.591		.886	.745	.588				
	D.S. corr.											
	Net											
Conc. (ppm)		1714	1576	1871		2835	2067	2106			=	2028

F.D.E

Date		6-25-80				6-25-80						
Time		1315				1315						
Gage height		5.56				5.56						
Sampling Sta.		1# 51	65	81		2# 51	65	81				
Temp. & Spec. Cond.		19.2/390	/	/	/	19.2/390	/	/	/	/	/	
Remarks	Q =	780	D.O. =	7.5								
WEIGHT OF SAMPLE	Gross	599.8	662.8	631.0		618.6	672.4	599.4				
	Tare	365	363	363		311	368	311				
	Net	234.8	299.8	268		247.6	304.4	288.4				
Container no.		029	53	64		34	47	023				
WEIGHT OF SEDIMENT	Gross	37.106	35.292	37.734		35.831	35.428	36.968				
	Tare	36.724	34.846	37.413		35.412	34.926	36.482				
	Net	.382	.546	.321		.419	.502	.286				
	D.S. corr.											
	Net											
Conc. (ppm)		1627	1821	1198		1692	1649	1252			=	1540

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UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River blw. Redcliff nr CO Computed by BH Checked by

Date		5-1-80				5-1-80						
Time		1315				1315						
Gage height		4.90				4.90						
Sampling Sta.		1 = 56	71	86		2 = 56	71	86				
Temp. & Spec. Cond.		13.0/580	/	/	/	13.0/580	/	/	/	/	/	
Remarks		Q = 12.61 cfs		P-H = 8.5		D.O. = 9.0						
WEIGHT OF SAMPLE	Gross	686.6	639.0	681.4		721	584.1	716.2				
	Tare	368	365	360		369	360	372				
	Net	318.6	274.	321.4		352.0	224.1	344.2				
Container no.		23	56	25		020	06	026				
WEIGHT OF SEDIMENT	Gross	36.873	36.462	36.441		37.848	37.662	37.680				
	Tare	35.773	35.447	35.501		36.463	36.957	36.643				
	Net	1.100	1.015	.940		1.385	.705	1.037				
	D.S. corr.											
	Net											
Conc. (ppm)		3519	3704	2871		3935	3146	3013		=		3364

Date		6-19-80				6-19-80						
Time		1145				1145						
Gage height		6.24				6.24						
Sampling Sta.		1 = 51	68	82		2 = 51	68	82				
Temp. & Spec. Cond.		17.4/350	/	/	/	17.4/350	/	/	/	/	/	
Remarks		Q = 5.37	PH =	7.2								
WEIGHT OF SAMPLE	Gross	621.1	679.9	618.1		660.2	684.7	737.0				
	Tare	370	364	369		371	371	370				
	Net	251.1	315.9	249.1		289.2	313.7	367.0				
Container no.		38	02	20		10	021	65				
WEIGHT OF SEDIMENT	Gross	36.216	37.223	35.772		36.225	37.343	37.984				
	Tare	35.722	36.824	35.403		35.789	36.851	37.528				
	Net	.494	.405	.369		.436	.492	.456				
	D.S. corr.											
	Net											
Conc. (ppm)		1967	1282	1481		1509	1568	1243		=		1508

F.D. I

S-11

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UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location Wh. Ti River blw. Quinault R. Computed by BK Checked by

Date		6-3-50				7-3-50						
Time		0945				0945						
Gage height		4.99				4.99						
Sampling Sta.		1# 50	64	82		2# 50	64	84				
Temp. & Spec. Cond.		— / —	/	/	/	/	/	/	/	/	/	/
Remarks		Q = 1378 cfs		PH = 7.5								
WEIGHT OF SAMPLE	Gross	564.	658.9	633.		601.2	636.1	575.8				
	Tare	356	367	363		371	366	370				
	Net	213.0	291.9	270.		230.2	270.1	205.8				
Container no.		52	030	02		39	013	38				
WEIGHT OF SEDIMENT	Gross	37.780	39.444	39.315		37.705	39.242	37.578				
	Tare	35.756	36.847	36.828		35.479	36.744	35.722				
	Net	2.024	2.597	2.487		2.226	2.498	1.856				
	D.S. corr.											
	Net											
Conc. (ppm)		9737	8897	9211		9670	9248	9018		=		9297

Date												
Time												
Gage height												
Sampling Sta.												
Temp. & Spec. Cond.		/	/	/	/	/	/	/	/	/	/	/
Remarks												
WEIGHT OF SAMPLE	Gross											
	Tare											
	Net											
Container no.												
WEIGHT OF SEDIMENT	Gross											
	Tare											
	Net											
	D.S. corr.											
	Net											
Conc. (ppm)												

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F.D.L

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division

SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River blw. Asphalt Utah Computed by BH Checked by

Date		7-14-50				7-14-50						
Time		1100				1100						
Gage height		3.94				3.94						
Sampling Sta.		1# 50	63	80		2# 50	63	80				
Temp. & Spec. Cond.		22.0/690	/	/	/	22.0/690	/	/	/	/	/	/
Remarks		Q = 6.25 cfs		PH = 8.3		D.O. = 7.0						
WEIGHT OF SAMPLE	Gross	630.3	616.9	567.3		616.5	661.1	588.5				
	Tare	368	363	367		367	359	367				
	Net	262.3	253.9	198.3		249.5	302.1	221.5				
Container no.		5	033	16		59	011	27				
WEIGHT OF SEDIMENT	Gross	35.126	36.786	35.489		36.002	37.117	36.005				
	Tare	34.946	36.683	35.410		35.873	36.978	35.917				
	Net	.180	.104	.079		.129	.139	.088				
	D.S. corr.											
	Net											
Conc. (ppm)		686	410	398		517	460	397		=		478

Date		7-29-50				7-29-50						
Time		1130				1130						
Gage height		3.49				3.49						
Sampling Sta.		1# 50	64	77		2# 50	64	77				
Temp & Spec. Cond.		21.5/800	/	/	/	21.5/800	/	/	/	/	/	/
Remarks		Q = 484 cfs		PH = 7.6		D.O. = 5.5 ?						
WEIGHT OF SAMPLE	Gross	623.2	722	653.8		675.4	679.8	717.2				
	Tare	366	372	367		361	367	371				
	Net	257.2	350	286.8		314.4	312.8	346.2				
Container no.		55	35	09		31	015	22				
WEIGHT OF SEDIMENT	Gross	35.677	36.130	36.716		35.543	36.727	35.899				
	Tare	35.622	36.057	36.655		35.480	36.672	35.824				
	Net	.055	.073	.061		.063	.055	.075				
	D.S. corr.											
	Net											
Conc. (ppm)		214	209	213		200	176	217		=		205

S-11

09306700

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UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division
SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White River Colo. Asphalt Creek Computed by BH Checked by

Date		8-11-80				8-11-80						
Time		1400				1400						
Gage height		3.38				3.38						
Sampling Sta.		1# 50	64	74		2# 50	64	74				
Temp. & Spec. Cond.		24.0/860	/	/	/	24.0/860	/	/	/	/	/	/
Remarks		Q=312, est		PH=8.3	D.O.=8.5							
WEIGHT OF SAMPLE	Gross	634.6	698.3	667.5		615.6	646.4	683.9				
	Tare	357	367	367		366	365	366				
	Net	277.6	331.3	300.5		249.6	281.4	317.9				
Container no.		56	29	03		07	4	19				
WEIGHT OF SEDIMENT	Gross	35.122	35.562	36.758		36.816	35.275	35.524				
	Tare	35.088	35.526	36.724		36.785	35.237	35.488				
	Net	.034	.036	.034		.031	.038	.036				
	D.S. corr.											
	Net											
Conc. (ppm)		122	109	113		124	135	113		=		119

Date		8-25-80				8-25-80						
Time		1130				1130						
Gage height		3.80				3.80						
Sampling Sta.		1# 59	72	86		2# 59	72	86				
Temp & Spec. Cond.		19.2/840	/	/	/	19.2/840	/	/	/	/	/	/
Remarks		est. Q=546 cfs		PH=7.8								
WEIGHT OF SAMPLE	Gross	672.3	640	661		638.9	690.6	718.6				
	Tare	360	370	359		362	367	365				
	Net	312.3	270	302.0		276.9	323.6	353.6				
Container no.		65	028	012		49	036	04				
WEIGHT OF SEDIMENT	Gross	38.827	37.897	39.744		37.642	38.065	38.134				
	Tare	37.530	36.789	36.583		36.443	36.711	36.748				
	Net	1.297	1.108	1.266		1.199	1.354	1.386				
	D.S. corr.											
	Net											
Conc. (ppm)		4153	4104	4192		4330	4184	3920				4147

S-11 E.D.I

From cable car

09306700

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey—Water Resources Division
SEDIMENT CONCENTRATION NOTES, DEPTH INTEGRATED SAMPLES (Short form)

Stream and location White R. blw. Asphalt W. Computed by BH Checked by

Date		11-02-79				11-02-79					
Time		1315				1315					
Gage height		3.47									
Sampling Sta.		1# 58	72	82		2# 58	72	82			
Temp. & Spec. Cond.		1.8 /100	/	/	/	1.8 /700	/	/	/	/	/
Remarks		Q = 394.	PH =		D.O. = 6.5						
WEIGHT OF SAMPLE	Gross	708.3	638.5	575.0		680.2	675.5	540.7			
	Tare	366	363	361		368	364	373			
	Net	342.3	275.5	214.0		312.2	311.5	167.7			
Container no.		613	16	23		50.	19	101			
WEIGHT OF SEDIMENT	Gross	36.878	35.480	35.384		35.847	35.594	36.581			
	Tare	36.741	35.418	35.341		35.730	35.514	36.543			
	Net	.137	.062	.043		.117	.080	.038			
	D.S. corr.										
	Net										
Conc. (ppm)		400	225	201		375	257	227		mean =	281

E.T.R - I

E.T.R

Date		11-2-79									
Time		1330									
Gage height		3.47									
Sampling Sta.		44,48	52,56	60,64	68	72	76	80	84,88	92,96	100,104
Temp. & Spec. Cond.		/	/	/	/	/	/	/	/	/	/
Remarks											
WEIGHT OF SAMPLE	Gross	579.5	682.9	787.8	675.9	717.7	704.0	583.3	614.6	546.3	435.0
	Tare	370	371	364	372	371	366	352	364	366	360
	Net	209.5	311.9	423.8	303.9	346.7	338.0	231.3	250.6	180.3	75.0
Container no.		08	025	015	033	55	53	02	66	07	21
WEIGHT OF SEDIMENT	Gross	36.782	37.158	36.962	36.763	35.724	34.930	36.855	35.413	36.813	35.846
	Tare	36.746	37.057	36.797	36.681	35.639	34.851	36.812	35.361	36.782	35.827
	Net	.036	.101	.165	.082	.085	.079	.043	.052	.031	.019
	D.S. corr.										
	Net										
Conc. (ppm)		172	324	389	270	245	225	186	208	172	253

composite conc = 259 ppm

Sta. 09306900

STATION 09306900

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY PROCESS DATE IS 01-27-81

STATION NUMBER 09306900 WHITE RIVER AT MOUTH NEAR OURAY UTAH STREAM SOURCE AGENCY USGS
LATITUDE 400354 LONGITUDE 1093806 DRAINAGE AREA 5120.00 DATUM 4657.00 STATE 49 COUNTY 047

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

PROVISIONAL DATA

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	507	230	370	330	880	448	1160	2180	1160	267	367
2	267	485	190	350	340	960	445	1210	2220	1140	282	357
3	258	437	220	350	370	850	446	1170	2140	1350	285	367
4	267	437	280	340	390	800	457	1120	2140	1630	271	365
5	284	473	400	340	420	650	447	1160	2140	1310	270	346
6	292	469	430	330	410	740	443	1210	2210	1090	255	355
7	303	471	440	360	390	780	463	1300	2310	954	252	352
8	330	457	440	370	380	770	504	1550	2390	852	243	428
9	348	446	430	370	360	780	491	1610	2430	803	240	354
10	322	454	390	380	390	780	427	1720	2480	729	236	516
11	314	445	360	380	410	650	413	1630	2460	646	255	712
12	322	444	360	330	470	580	485	1840	2540	614	291	577
13	322	439	360	380	540	560	459	1990	2630	608	281	457
14	330	428	360	390	620	560	421	1960	2680	548	260	409
15	353	403	360	380	720	610	405	1740	2580	547	244	414
16	371	390	360	370	1000	650	415	1610	2410	606	251	383
17	394	385	360	360	1200	620	468	1620	2250	531	340	372
18	365	366	370	360	1500	502	524	1820	2120	459	400	384
19	371	415	380	360	1900	412	544	1740	2000	437	384	388
20	559	412	380	350	2400	394	582	1620	1960	434	401	374
21	590	441	380	350	2600	465	665	1760	1930	388	366	368
22	505	379	360	350	2500	478	757	1960	1830	376	359	369
23	575	349	370	350	2270	519	851	2220	1870	355	324	399
24	580	295	370	340	1910	600	964	2520	1790	322	283	394
25	540	212	360	340	1560	539	960	2660	1670	293	433	403
26	525	255	360	340	1200	527	944	2560	1600	301	1040	381
27	520	434	340	340	900	550	921	2440	1550	339	667	367
28	520	376	330	330	600	519	930	2360	1450	319	545	366
29	520	330	360	330	540	481	956	2340	1360	296	441	363
30	520	280	390	330	---	457	1040	2350	1240	282	417	371
31	515	---	370	330	---	447	---	2300	---	268	389	---
TOTAL	12553	12134	11130	10950	29140	19120	18311	56560	62560	19987	10982	12058
MEAN	405	404	359	354	1005	617	610	1825	2085	645	354	402
MAX	590	507	440	390	2600	960	1040	2660	2680	1630	1040	712
MIN	258	212	190	330	330	394	405	1120	1240	268	236	346
AC-FT	24900	24070	22080	21740	57800	37920	36320	112200	124100	39640	21780	23920

CAL YR 1979 TOTAL 243535 MEAN 664 MAX 4200 MIN 190 AC-FT 562400
WTR YR 1980 TOTAL 275515 MEAN 753 MAX 2680 MIN 190 AC-FT 546500

WELL P-1

UR DATE 12/[illegible]/79

WHITE RIVER SHALE PROJECT

WELLS 1315 W. HWY. 40 P1

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
5	11	79	0.00	281.98	281.98	282.04	282.07	281.9	282.00
6	11	79	282.06	282.05	281.95	281.93	282.07	281.92	282.00
7	11	79	281.88	281.85	281.77	281.72	281.92	281.72	281.81
8	11	79	281.68	281.59	281.54	281.58	281.71	281.54	281.60
9	11	79	281.63	281.65	281.64	281.72	281.74	281.61	281.66
10	11	79	281.79	281.83	281.80	281.82	281.84	281.76	281.81
11	11	79	281.80	281.85	281.89	282.00	282.04	281.79	281.89
12	11	79	282.07	282.10	282.07	282.09	282.11	282.06	282.08
13	11	79	282.09	282.10	282.02	282.05	282.11	282.02	282.07
14	11	79	282.06	282.09	282.04	282.08	282.10	282.04	282.07
15	11	79	282.09	282.14	282.10	282.13	282.15	282.09	282.12
16	11	79	282.09	282.08	281.94	281.92	282.11	281.89	282.01
17	11	79	281.85	281.80	281.69	281.67	281.87	281.62	281.75
18	11	79	281.59	281.60	281.64	281.74	281.76	281.59	281.64
[illegible]	11	79	281.75	281.78	281.75	281.74	281.79	281.73	281.76
20	11	79	281.72	281.76	281.83	281.94	282.00	281.72	281.81
21	11	79	282.02	282.09	282.10	282.14	282.16	282.01	282.09
22	11	79	282.14	208.21	0.00	0.00	282.16	208.21	271.58

Tape Slow!
Found pulling through holes!

WELLS

UNITE RIVER SHALE PROJECT

1315 W. HWY. 40

P 1

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
4	12	79	0.00	282.12	282.02	281.87	282.12	281.84	281.96
5	12	79	281.78	281.75	281.75	281.75	281.83	281.74	281.76
6	12	79	281.75	281.74	281.73	281.75	281.77	281.72	281.74
7	12	79	281.81	281.84	281.85	281.89	281.93	281.79	281.85
8	12	79	281.97	282.00	282.01	282.05	282.08	281.94	282.01
9	12	79	282.09	282.10	282.03	281.95	282.11	281.91	282.04
10	12	79	281.86	281.76	281.62	281.59	281.88	281.58	281.71
11	12	79	281.72	281.78	281.83	281.90	281.92	281.68	281.81
12	12	79	281.95	281.96	281.92	282.00	282.04	281.91	281.96
13	12	79	282.08	282.18	282.17	282.18	282.20	282.05	282.15
14	12	79	282.18	282.17	282.08	282.06	282.19	282.05	282.12
15	12	79	282.01	281.98	281.89	281.91	282.03	281.87	281.95
16	12	79	281.95	282.02	282.04	282.13	282.16	281.94	282.04
17	12	79	282.15	282.17	282.14	282.14	282.19	282.13	282.15
18	12	79	282.12	282.08	281.98	281.97	282.14	281.96	282.04
19	12	79	281.93	281.90	281.86	281.87	281.96	281.85	281.89
20	12	79	281.86	281.85	281.81	281.78	281.87	281.78	281.83
21	12	79	281.76	281.67	281.56	281.49	281.79	281.48	281.62
22	12	79	281.46	0.00	0.00	0.00	281.48	281.45	281.46

Tape slow! Not advancing

RUN DATE 02/12/80

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

WELLS

P 1

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
31	12	79	0.00	282.06	282.03	282.01	282.06	282.00	282.03
1	1	80	281.97	281.92	281.89	281.88	282.01	281.87	281.92
2	1	80	281.90	281.91	281.94	281.98	282.01	281.88	281.93
3	1	80	282.00	281.96	281.90	281.88	282.01	281.87	281.94
4	1	80	281.89	281.89	281.89	281.86	281.92	281.87	281.89
5	1	80	281.91	281.89	281.83	281.74	281.91	281.73	281.84
6	1	80	281.66	281.66	281.70	281.69	281.72	281.60	281.68
7	1	80	281.69	281.67	281.66	281.68	281.70	281.64	281.67
8	1	80	281.64	281.66	281.72	281.74	281.75	281.63	281.69
9	1	80	281.75	281.75	281.71	281.61	281.76	281.55	281.71
10	1	80	281.45	281.35	281.40	281.76	281.85	281.29	281.49
11	1	80	281.92	282.01	281.99	281.99	282.04	281.87	281.98
12	1	80	281.97	281.95	281.88	281.87	281.98	281.86	281.92
13	1	80	281.86	281.89	281.88	281.87	281.91	281.85	281.87
14	1	80	281.79	281.79	281.84	281.88	281.91	281.73	281.82
15	1	80	281.91	281.94	281.96	281.99	282.01	281.90	281.95
16	1	80	282.00	281.98	281.98	281.98	282.01	281.96	281.99
17	1	80	281.96	281.89	281.87	281.85	281.99	281.85	281.89
18	1	80	281.79	281.71	281.72	281.79	281.86	281.70	281.75
19	1	80	281.89	281.97	282.05	282.10	282.15	281.87	282.00
20	1	80	282.19	282.21	282.21	282.20	282.22	282.17	282.20
21	1	80	282.19	282.11	282.07	282.09	282.20	282.07	282.12
22	1	80	282.14	282.14	282.15	282.15	282.15	282.12	282.15
23	1	80	282.16	282.17	282.19	282.14	282.19	282.11	282.16
24	1	80	282.07	281.99	281.87	281.81	282.10	281.75	281.93
25	1	80	281.70	281.58	281.51	281.57	281.74	281.50	281.59
26	1	80	281.57	281.58	281.59	281.68	281.71	281.57	281.61
27	1	80	281.66	281.61	281.55	281.59	281.71	281.54	281.61
28	1	80	281.68	281.72	281.72	281.74	281.75	281.67	281.71
29	1	80	281.71	281.61	281.54	281.71	281.80	281.53	281.64
30	1	80	281.86	282.03	282.13	282.21	282.26	281.83	282.06
31	1	80	282.28	282.32	282.32	282.28	282.35	282.27	282.30
1001	2	80	282.24	282.22	0.00	0.00	282.28	282.21	282.23

DATE 03/31/80

WHITE RIVER SHALE PROJECT

WELLS 1315 W. HWY. 40 P 1

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
1	2	80	0.00	282.21	282.16	282.16	282.21	282.14	282.17
2	2	80	282.18	282.19	282.16	282.15	282.21	282.14	282.17
3	2	80	282.14	282.10	282.02	281.99	282.16	281.98	282.06
4	2	80	281.99	282.01	282.01	282.03	282.06	281.99	282.01
5	2	80	282.09	282.12	282.07	282.02	282.13	282.01	282.07
6	2	80	281.96	281.86	281.74	281.71	282.00	281.69	281.82
7	2	80	281.67	281.61	281.69	281.79	281.84	281.60	281.69
8	2	80	281.89	281.97	281.98	282.01	282.04	281.86	281.97
9	2	80	282.05	282.09	282.06	282.05	282.10	282.03	282.06
10	2	80	282.01	281.97	281.86	281.86	282.03	281.85	281.92
11	2	80	281.83	281.85	281.82	281.84	281.85	281.81	281.83
12	2	80	281.82	281.81	281.74	281.75	281.84	281.73	281.78
13	2	80	281.73	281.73	281.70	281.72	281.74	281.70	281.72
14	2	80	281.70	281.70	281.63	281.66	281.71	281.60	281.68
15	2	80	281.70	281.77	281.79	281.86	281.90	281.70	281.78
16	2	80	281.90	281.96	281.90	281.86	281.99	281.85	281.91
17	2	80	281.78	281.72	281.71	281.70	281.84	281.70	281.73
18	2	80	281.68	281.60	281.58	281.61	281.70	281.56	281.62
19	2	80	281.70	281.73	281.70	281.61	281.73	281.59	281.69
20	2	80	281.54	281.53	281.56	281.65	281.69	281.52	281.57
21	2	80	281.72	281.74	281.73	281.73	281.74	281.71	281.73
22	2	80	281.75	281.85	281.89	281.92	281.93	281.73	281.85
23	2	80	281.90	281.94	281.99	282.08	282.11	281.89	281.98
24	2	80	282.12	282.19	282.19	282.22	282.23	282.11	282.18
25	2	80	282.23	282.23	282.18	282.18	282.24	282.17	282.20
26	2	80	282.13	282.14	282.08	282.09	282.17	282.07	282.11
27	2	80	282.05	282.02	281.93	281.90	282.08	281.90	281.98
28	2	80	281.85	281.83	281.72	281.72	281.89	281.70	281.78
29	2	80	281.73	281.74	281.76	281.86	281.90	281.73	281.77
1	3	80	281.91	281.94	281.90	281.87	281.96	281.86	281.91
2	3	80	281.86	281.84	281.72	281.68	281.88	281.67	281.77
3	3	80	281.55	281.48	281.44	0.00	281.62	281.44	281.51

ATE 07/15/

WELLS

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

	DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
281.42 1400	3	3	80	0.00	0.00	281.42	281.43	281.44	281.42	281.42
	4	3	80	281.45	281.53	281.58	281.66	281.73	281.44	281.56
	5	3	80	281.73	281.73	281.68	281.60	281.73	281.59	281.68
	6	3	80	281.59	281.60	281.60	281.56	281.61	281.53	281.59
	7	3	80	281.50	281.54	281.64	281.73	281.74	281.49	281.60
	8	3	80	281.79	281.86	281.86	281.87	281.88	281.75	281.85
	9	3	80	281.89	281.91	281.88	281.88	281.91	281.88	281.89
	10	3	80	281.88	281.88	281.83	281.77	281.88	281.72	281.84
	11	3	80	281.69	281.63	281.52	281.51	281.72	281.50	281.59
	12	3	80	281.48	281.67	281.75	281.85	281.87	281.47	281.69
	13	3	80	281.85	281.88	281.83	281.85	281.89	281.82	281.85
	14	3	80	281.84	281.83	281.74	281.72	281.86	281.72	281.78
	15	3	80	281.69	281.68	281.60	281.60	281.72	281.56	281.65
	16	3	80	281.72	281.79	281.87	281.99	282.05	281.72	281.85
	17	3	80	282.05	282.06	281.95	281.86	282.07	281.84	281.98
	18	3	80	281.77	281.72	281.67	281.63	281.83	281.62	281.70
	19	3	80	281.69	281.69	281.68	281.73	281.76	281.68	281.70
	20	3	80	281.82	281.86	281.83	281.76	281.86	281.73	281.82
	21	3	80	281.71	281.65	281.56	281.58	281.73	281.55	281.63
	22	3	80	281.58	281.57	281.55	281.57	281.59	281.54	281.57
	23	3	80	281.60	281.67	281.70	281.73	281.73	281.59	281.68
	24	3	80	281.73	281.72	281.65	281.63	281.73	281.62	281.68
	25	3	80	281.61	281.60	281.61	281.70	281.72	281.60	281.63
	26	3	80	281.73	281.79	281.74	281.74	281.80	281.73	281.75
	27	3	80	281.72	281.71	281.67	281.72	281.74	281.66	281.71
	28	3	80	281.72	281.75	281.79	281.88	281.91	281.72	281.79
	29	3	80	281.90	281.95	281.89	281.85	281.96	281.84	281.90
	30	3	80	281.75	281.65	281.58	281.60	281.83	281.58	281.64
	31	3	80	281.59	281.61	281.60	281.66	281.69	281.58	281.61
281.72 1200	1	4	80	281.70	281.72	0.00	0.00	281.73	281.69	281.71

ATE 07/18/80

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

WELLS

PJ

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
1	4	80	0.00	281.72	281.71	281.69	281.72	281.69	281.70
2	4	80	281.64	281.63	281.69	281.77	281.83	281.60	281.68
3	4	80	281.87	281.95	281.93	281.93	281.96	281.85	281.92
4	4	80	281.94	281.94	281.86	281.81	281.95	281.77	281.89
5	4	80	281.72	281.70	281.68	281.64	281.76	281.63	281.69
6	4	80	281.68	281.71	281.71	281.70	281.71	281.65	281.70
7	4	80	281.72	281.81	281.90	282.01	282.04	281.70	281.86
8	4	80	282.06	282.10	282.05	282.02	282.11	282.01	282.06
9	4	80	281.98	281.91	281.76	281.70	282.00	281.68	281.84
10	4	80	281.69	281.71	281.70	281.72	281.73	281.68	281.71
11	4	80	281.72	281.82	281.84	281.93	281.96	281.72	281.83
12	4	80	281.95	281.97	281.91	281.98	282.01	281.89	281.95
13	4	80	282.00	282.01	281.87	281.82	282.02	281.81	281.93
14	4	80	281.79	281.79	281.72	281.72	281.82	281.71	281.76
15	4	80	281.73	281.74	281.72	281.76	281.82	281.71	281.74
16	4	80	281.84	281.91	281.92	281.93	281.97	281.83	281.90
17	4	80	281.98	282.00	281.92	281.85	282.01	281.85	281.94
18	4	80	281.86	281.86	281.80	281.74	281.87	281.74	281.82
19	4	80	281.77	281.80	281.74	281.71	281.80	281.71	281.75
20	4	80	281.71	281.71	281.67	281.62	281.72	281.61	281.68
21	4	80	281.60	281.60	281.58	281.62	281.63	281.57	281.60
22	4	80	281.63	281.64	281.55	281.51	281.66	281.49	281.58
23	4	80	281.50	281.55	281.55	281.58	281.59	281.49	281.55
24	4	80	281.54	281.54	281.49	281.53	281.57	281.48	281.52
25	4	80	281.57	281.67	281.69	281.72	281.73	281.55	281.66
26	4	80	281.73	281.77	281.73	281.75	281.79	281.72	281.75
27	4	80	281.80	281.85	281.80	281.78	281.86	281.76	281.81
28	4	80	281.77	281.78	281.71	281.70	281.79	281.70	281.74
29	4	80	281.67	281.59	281.48	281.51	281.70	281.45	281.56
30	4	80	281.51	281.51	281.49	281.52	281.55	281.49	281.51
1	5	80	281.56	281.65	281.68	281.71	281.74	281.56	281.65
2	5	80	281.75	281.79	281.76	281.75	281.80	281.74	281.76
3	5	80	281.78	281.80	281.75	281.73	281.81	281.72	281.77
4	5	80	281.75	281.76	281.72	281.74	281.76	281.72	281.74
5	5	80	281.74	281.75	0.00	0.00	281.75	281.74	281.74

DATE 07/1[illegible]

WHITE RIVER [illegible]ALE PROJECT

WELLS — 1315 W. HWY. 40

P 1

	DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
281.20 1100	2	6	80	0.00	281.20	281.17	281.12	281.20	281.12	281.16
	3	6	80	281.17	281.25	281.26	281.25	281.26	281.14	281.23
	4	6	80	281.28	281.32	281.29	281.27	281.33	281.26	281.29
	5	6	80	281.27	281.29	281.23	281.21	281.31	281.20	281.25
	6	6	80	281.22	281.25	281.22	281.31	281.36	281.21	281.25
	7	6	80	281.41	281.51	281.47	281.47	281.52	281.37	281.46
	8	6	80	281.49	281.53	281.43	281.42	281.54	281.37	281.47
	9	6	80	281.49	281.54	281.44	281.37	281.55	281.36	281.46
	10	6	80	281.35	281.40	281.30	281.27	281.41	281.25	281.33
	11	6	80	281.30	281.35	281.32	281.30	281.37	281.29	281.32
	12	6	80	281.35	281.41	281.35	281.31	281.42	281.29	281.36
	13	6	80	281.37	281.41	281.34	281.27	281.41	281.27	281.35
	14	6	80	281.28	281.29	281.30	281.34	281.43	281.27	281.30
	15	6	80	281.47	281.52	281.52	281.50	281.53	281.44	281.50
	16	6	80	281.54	281.56	281.52	281.44	281.56	281.44	281.51
	17	6	80	281.44	281.45	281.41	281.34	281.46	281.33	281.41
	18	6	80	281.33	281.34	281.29	281.26	281.35	281.26	281.31
	19	6	80	281.29	281.32	281.30	281.30	281.32	281.27	281.30
	20	6	80	281.33	281.38	281.31	281.28	281.40	281.28	281.33
	21	6	80	281.30	281.35	281.29	281.27	281.36	281.27	281.30
	22	6	80	281.28	281.32	281.27	281.24	281.33	281.24	281.28
	23	6	80	281.23	281.23	281.16	281.16	281.24	281.13	281.20
	24	6	80	281.23	281.30	281.26	281.26	281.31	281.20	281.26
	25	6	80	281.30	281.36	281.32	281.30	281.38	281.28	281.32
	26	6	80	281.31	281.33	281.28	281.24	281.33	281.24	281.29
	27	6	80	281.31	281.45	281.42	281.40	281.47	281.27	281.40
	28	6	80	281.45	281.49	281.44	281.34	281.50	281.33	281.43
	29	6	80	281.37	281.37	281.31	281.27	281.37	281.26	281.33
	30	6	80	281.28	281.35	281.37	281.29	281.44	281.25	281.32
	1	7	80	281.40	281.42	281.41	281.39	281.44	281.37	281.40
281.47 0900	2	7	80	281.44	281.47	0.00	0.00	281.47	281.43	281.45

WELLS 1315 W. HWY. 40 P 1

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	AV
4	8	80	0.00	281.26	281.24	281.24	281.26	281.23	281.
5	8	80	281.27	281.33	281.27	281.26	281.33	281.25	281.2
6	8	80	281.29	281.39	281.35	281.34	281.41	281.27	281.34
7	8	80	281.38	281.45	281.42	281.37	281.46	281.35	281.40
8	8	80	281.41	281.44	281.37	281.31	281.45	281.29	281.38
9	8	80	281.33	281.41	281.37	281.33	281.43	281.31	281.36
10	8	80	281.38	281.44	281.44	281.44	281.46	281.37	281.43
11	8	80	281.48	281.52	281.50	281.44	281.54	281.44	281.49
12	8	80	281.46	281.46	281.43	281.42	281.46	281.40	281.44
13	8	80	281.44	281.44	281.41	281.40	281.44	281.37	281.42
14	8	80	281.42	281.41	281.32	281.28	281.43	281.26	281.36
15	8	80	281.33	281.33	281.32	281.38	281.39	281.31	281.34
16	8	80	281.43	281.46	281.47	281.47	281.48	281.42	281.46
17	8	80	281.51	281.55	281.48	281.43	281.55	281.42	281.49
18	8	80	281.41	281.36	281.30	281.28	281.42	281.28	281.34
19	8	80	281.31	281.38	281.39	281.50	281.54	281.29	281.40
20	8	80	281.57	281.64	281.60	281.59	281.65	281.55	281.60
21	8	80	281.62	281.66	281.57	281.51	281.67	281.51	281.59
22	8	80	281.51	281.55	281.46	281.43	281.56	281.42	281.49
23	8	80	281.47	281.55	281.53	281.58	281.60	281.45	281.53
24	8	80	281.61	281.66	281.61	281.59	281.68	281.55	281.62
25	8	80	281.59	281.60	281.62	281.57	281.66	281.56	281.59
26	8	80	281.60	281.65	281.63	281.60	281.68	281.59	281.62
27	8	80	281.61	281.58	281.51	281.44	281.62	281.44	281.54
28	8	80	281.48	281.51	281.49	281.44	281.52	281.44	281.48
29	8	80	281.46	281.49	281.48	281.45	281.50	281.45	281.47
30	8	80	281.45	281.44	281.36	281.37	281.45	281.32	281.40
31	8	80	281.45	281.45	281.44	281.46	281.48	281.43	281.45
1	9	80	281.51	281.56	281.54	281.52	281.57	281.48	281.53
2	9	80	281.54	281.58	281.49	281.45	281.59	281.45	281.51
3	9	80	281.45	281.51	0.00	0.00	281.52	281.45	281.47

: 10/27/

WHITE RI R SHALE PROJECT

WELLS 13 . W . HWY . 40 P 1

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/D.
3	9	80	0.00	281.54	281.51	281.54	281.57	281.51	281.53
4	9	80	281.59	281.66	281.62	281.61	281.67	281.58	281.62
5	9	80	281.64	281.72	281.70	281.63	281.73	281.63	281.67
6	9	80	281.63	281.66	281.60	281.55	281.68	281.55	281.61
7	9	80	281.55	281.56	281.57	281.52	281.59	281.51	281.55
8	9	80	281.57	281.63	281.69	281.70	281.72	281.56	281.65
9	9	80	281.72	281.72	281.72	281.72	281.73	281.72	281.72
10	9	80	281.71	281.61	281.57	281.50	281.72	281.48	281.60
11	9	80	281.51	281.47	281.45	281.45	281.52	281.44	281.47
12	9	80	281.48	281.50	281.50	281.47	281.52	281.46	281.49
13	9	80	281.50	281.49	281.45	281.47	281.50	281.45	281.48
14	9	80	281.53	281.57	281.58	281.57	281.59	281.51	281.56
15	9	80	281.59	281.59	281.54	281.48	281.60	281.48	281.55
16	9	80	281.47	281.48	281.47	281.48	281.51	281.46	281.47
17	9	80	281.53	281.54	281.53	281.53	281.55	281.51	281.53
18	9	80	281.58	281.61	281.50	281.44	281.62	281.44	281.53
19	9	80	281.44	281.45	281.36	281.39	281.47	281.33	281.41
20	9	80	281.47	281.53	281.45	281.38	281.54	281.37	281.46
21	9	80	281.33	281.40	281.43	281.53	281.59	281.32	281.42
22	9	80	281.62	281.68	281.61	281.58	281.72	281.57	281.62
23	9	80	281.59	281.60	281.54	281.50	281.61	281.48	281.56
24	9	80	281.53	281.54	281.52	281.50	281.56	281.47	281.52
25	9	80	281.57	281.60	281.57	281.54	281.61	281.52	281.57
26	9	80	281.59	281.60	281.57	281.53	281.61	281.52	281.57
27	9	80	281.57	281.56	281.50	281.45	281.57	281.44	281.52
28	9	80	281.49	281.48	281.43	281.43	281.49	281.41	281.46
29	9	80	281.53	281.58	281.59	281.61	281.63	281.49	281.58
30	9	80	281.66	281.68	281.78	281.80	281.84	281.63	281.73
1	10	80	281.83	281.86	281.81	281.82	281.87	281.80	281.83
2	10	80	281.88	281.97	281.96	0.00	281.99	281.85	281.93

WELL P-2 UPPER

WELL P-3 UPPER

WHITE R[illegible]ER SHALE PROJECT

WELLS — 1315 W. HWY. 40 — P 2 UPPER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DA
1	10	79	0.00	100.09	100.02	99.97	100.09	99.97	100.0(
2	10	79	99.98	100.00	99.94	99.91	100.01	99.90	99.9(
3	10	79	99.94	100.02	100.03	100.01	100.06	99.93	100.0(
4	10	79	100.07	100.07	100.02	99.97	100.08	99.95	100.0
5	10	79	100.02	100.01	99.99	99.95	100.03	99.94	99.9
6	10	79	100.02	99.99	99.96	99.91	100.03	99.91	99.9
7	10	79	99.95	99.93	99.91	99.85	99.95	99.84	99.9
8	10	79	99.88	99.90	99.86	99.84	99.90	99.84	99.8
9	10	79	99.96	100.01	100.02	100.00	100.02	99.92	100.0(
10	10	79	100.03	100.05	99.99	99.95	100.05	99.95	100.0
11	10	79	99.97	99.97	99.90	99.86	99.98	99.86	99.9
12	10	79	99.86	99.87	99.85	99.84	99.87	99.84	99.8
13	10	79	99.85	99.87	99.85	99.83	99.89	99.83	99.8
14	10	79	99.83	99.84	99.83	99.84	99.85	99.82	99.84
15	10	79	99.85	99.91	99.88	99.81	99.93	99.81	99.8
16	10	79	99.83	99.88	99.89	99.85	99.91	99.82	99.86
17	10	79	99.85	99.84	99.78	99.72	99.85	99.72	99.8(
18	10	79	99.75	99.74	99.70	99.61	99.75	99.61	99.70
19	10	79	99.57	99.50	99.44	99.37	99.61	99.34	99.47
20	10	79	99.44	99.43	99.48	99.49	99.55	99.42	99.46
21	10	79	99.56	99.58	99.66	99.74	99.82	99.56	99.64
22	10	79	99.85	99.85	99.85	99.84	99.85	99.84	99.85
23	10	79	99.85	99.85	99.84	99.81	99.85	99.81	99.84
24	10	79	99.85	99.83	99.81	99.76	99.85	99.76	99.81
25	10	79	99.81	99.80	99.73	99.70	99.82	99.70	99.76
26	10	79	99.71	99.72	99.70	99.73	99.76	99.70	99.71
27	10	79	99.80	99.84	99.80	99.78	99.85	99.77	99.81
28	10	79	99.78	99.76	99.61	99.56	99.78	99.56	99.68
29	10	79	99.57	99.56	99.56	99.63	99.66	99.56	99.58
30	10	79	99.66	99.74	99.72	99.72	99.77	99.66	99.71
31	10	79	99.72	99.73	99.71	99.73	99.77	99.69	99.72
1	11	79	99.77	99.77	99.75	99.78	99.83	99.73	99.77
2	11	79	99.84	99.87	99.87	99.84	99.92	99.82	99.85
3	11	79	99.86	99.80	99.76	99.70	99.88	99.70	99.78
4	11	79	99.70	99.62	99.62	99.68	99.75	99.62	99.66
5	11	79	99.80	99.83	0.00	0.00	99.85	99.77	99.82

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WHITE RIVER SHALE PROJECT

WELLS — 1315 W. HWY. 40 — P 2 UPPER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
5	11	79	0.00	99.91	99.90	99.92	99.97	99.90	99.91
6	11	79	99.98	99.94	99.90	99.85	99.98	99.85	99.92
7	11	79	99.85	99.81	99.77	99.72	99.85	99.71	99.79
8	11	79	99.70	99.60	99.55	99.55	99.71	99.54	99.60
9	11	79	99.59	99.60	99.58	99.61	99.64	99.57	99.60
10	11	79	99.70	99.73	99.71	99.71	99.73	99.66	99.71
11	11	79	99.71	99.74	99.75	99.84	99.85	99.71	99.76
12	11	79	99.92	99.97	99.93	99.95	99.98	99.85	99.95
13	11	79	99.96	99.98	99.92	99.95	99.99	99.90	99.95
14	11	79	99.97	100.00	99.96	100.00	100.02	99.94	99.98
15	11	79	100.03	100.05	100.03	100.05	100.07	100.01	100.04
16	11	79	100.05	100.04	99.94	99.93	100.07	99.92	99.99
17	11	79	99.90	99.84	99.73	99.69	99.94	99.68	99.79
18	11	79	99.68	99.65	99.66	99.74	99.79	99.65	99.68
19	11	79	99.80	99.77	99.76	99.73	99.81	99.72	99.76
20	11	79	99.72	99.71	99.74	99.85	99.94	99.70	99.76
21	11	79	99.97	99.97	99.98	100.01	100.06	99.95	99.98
22	11	79	100.07	100.02	99.94	99.92	100.08	99.91	99.99
23	11	79	99.90	99.79	99.76	99.79	99.91	99.76	99.81
24	11	79	99.85	99.85	99.80	99.75	99.85	99.75	99.81
25	11	79	99.75	99.77	99.73	99.66	99.77	99.59	99.73
26	11	79	99.57	99.56	99.58	99.71	99.75	99.56	99.60
27	11	79	99.81	99.94	99.96	100.05	100.09	99.76	99.94
28	11	79	100.11	100.19	100.20	100.21	100.22	100.09	100.18
29	11	79	100.22	100.21	100.14	100.12	100.22	100.12	100.17
30	11	79	100.11	100.09	100.03	100.07	100.13	100.02	100.07
1	12	79	100.08	100.08	100.07	100.10	100.14	100.05	100.08
2	12	79	100.12	100.07	100.01	100.04	100.14	99.99	100.06
3	12	79	100.11	100.13	90.10	0.00	100.16	90.10	99.35

'24/80

WELLS

WHITE RIVER SHALE PROJECT

13[illegible] W. HWY. 40

P 2 UPPER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
3	12	79	0.00	0.00	100.17	100.21	100.26	100.17	100.19
4	12	79	100.25	100.19	100.05	99.95	100.27	99.95	100.11
5	12	79	99.92	99.84	99.84	99.84	99.94	99.83	99.86
6	12	79	99.85	99.83	99.80	99.81	99.86	99.79	99.82
7	12	79	99.88	99.89	99.89	99.92	99.97	99.85	99.90
8	12	79	100.01	100.02	100.01	100.03	100.05	99.97	100.02
9	12	79	100.07	100.09	100.02	99.98	100.09	99.97	100.04
10	12	79	99.92	99.83	99.68	99.67	99.95	99.66	99.78
11	12	79	99.76	99.82	99.83	99.93	99.96	99.71	99.84
12	12	79	99.96	99.96	99.92	99.98	100.01	99.91	99.96
13	12	79	100.03	100.10	100.10	100.12	100.13	100.01	100.09
14	12	79	100.12	100.12	100.04	100.04	100.13	100.03	100.08
15	12	79	100.03	100.01	99.92	99.95	100.05	99.91	99.98
16	12	79	99.99	100.03	100.05	100.13	100.17	99.99	100.05
17	12	79	100.16	100.14	100.12	100.14	100.17	100.11	100.14
18	12	79	100.14	100.10	100.01	100.01	100.17	99.98	100.07
19	12	79	100.02	99.97	99.93	99.93	100.05	99.90	99.97
20	12	79	99.96	99.91	99.88	99.84	99.98	99.84	99.90
21	12	79	99.84	99.75	99.66	99.57	99.85	99.57	99.71
22	12	79	99.58	99.57	99.58	99.62	99.68	99.57	99.59
23	12	79	99.74	99.79	99.83	99.87	99.91	99.70	99.81
24	12	79	99.94	99.96	99.95	99.95	99.96	99.91	99.95
25	12	79	99.95	99.96	99.93	99.95	99.96	99.93	99.95
26	12	79	99.95	99.95	99.90	99.91	99.95	99.90	99.93
27	12	79	99.90	99.91	99.91	99.95	99.97	99.90	99.92
28	12	79	99.97	100.02	100.02	100.04	100.05	99.97	100.01
29	12	79	100.03	100.00	99.96	99.97	100.05	99.95	99.99
30	12	79	99.96	99.97	99.97	100.02	100.06	99.94	99.98
31	12	79	100.04	100.02	0.00	0.00	100.07	100.01	100.03

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WELLS

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

P 2 UPPER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
31	12	79	0.00	100.04	100.00	100.01	100.05	99.99	100.01
1	1	80	99.96	99.93	99.91	99.94	100.01	99.90	99.94
2	1	80	99.94	99.94	99.95	99.99	100.01	99.92	99.95
3	1	80	100.00	99.95	99.92	99.92	100.02	99.90	99.95
4	1	80	99.93	99.91	99.91	99.92	99.95	99.90	99.92
5	1	80	99.94	99.91	99.83	99.75	99.95	99.74	99.86
6	1	80	99.69	99.68	99.68	99.68	99.72	99.67	99.68
7	1	80	99.68	99.67	99.65	99.65	99.68	99.65	99.66
8	1	80	99.64	99.64	99.66	99.68	99.69	99.64	99.65
9	1	80	99.69	99.67	99.60	99.51	99.69	99.42	99.61
10	1	80	99.40	99.30	99.46	99.73	99.77	99.27	99.47
11	1	80	99.80	99.84	99.81	99.81	99.84	99.79	99.81
12	1	80	99.79	99.76	99.70	99.70	99.81	99.70	99.74
13	1	80	99.70	99.74	99.70	99.70	99.74	99.70	99.71
14	1	80	99.59	99.63	99.66	99.75	99.77	99.55	99.66
15	1	80	99.75	99.76	99.76	99.81	99.84	99.74	99.77
16	1	80	99.80	99.78	99.77	99.79	99.84	99.76	99.78
17	1	80	99.77	99.72	99.70	99.68	99.81	99.68	99.72
18	1	80	99.62	99.54	99.55	99.67	99.76	99.54	99.59
19	1	80	99.78	99.79	99.83	99.89	99.96	99.77	99.82
20	1	80	99.99	100.00	99.99	99.96	100.00	99.96	99.99
21	1	80	99.96	99.91	99.90	99.91	99.96	99.90	99.92
22	1	80	99.97	99.97	99.97	99.97	99.98	99.95	99.97
23	1	80	99.99	100.01	100.01	99.99	100.01	99.96	100.00
24	1	80	99.93	99.89	99.79	99.75	99.95	99.70	99.84
25	1	80	99.62	99.56	99.50	99.56	99.66	99.49	99.56
26	1	80	99.55	99.54	99.53	99.59	99.60	99.52	99.55
27	1	80	99.55	99.52	99.45	99.51	99.60	99.45	99.51
28	1	80	99.54	99.54	99.55	99.57	99.58	99.54	99.55
29	1	80	99.50	99.44	99.41	99.61	99.68	99.40	99.49
30	1	80	99.70	99.82	99.85	99.96	100.02	99.69	99.83
31	1	80	100.03	100.03	100.01	100.01	100.03	99.99	100.02
1	2	80	100.01	99.98	0.00	0.00	100.03	99.98	100.00

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WHITE RIVER SHALE PROJECT

WELLS — 1315 W. HWY. 40 — P 2 UPPER

	DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
99.99 0700	1	2	80	0.00	99.99	99.97	99.96	100.00	99.95	99.97
	2	2	80	100.01	100.00	99.99	99.99	100.01	99.98	100.00
	3	2	80	100.00	99.97	99.93	99.90	100.01	99.89	99.95
	4	2	80	99.90	99.90	99.91	99.92	99.95	99.90	99.91
	5	2	80	99.99	100.00	99.98	99.94	100.00	99.93	99.98
	6	2	80	99.92	99.83	99.73	99.67	99.93	99.64	99.79
	7	2	80	99.63	99.62	99.65	99.72	99.75	99.62	99.66
	8	2	80	99.79	99.84	99.85	99.86	99.89	99.76	99.84
	9	2	80	99.90	99.93	99.94	99.94	99.94	99.89	99.93
	10	2	80	99.93	99.90	99.79	99.78	99.94	99.78	99.85
	11	2	80	99.78	99.78	99.76	99.77	99.78	99.75	99.77
	12	2	80	99.77	99.76	99.69	99.68	99.78	99.67	99.72
	13	2	80	99.68	99.66	99.64	99.64	99.70	99.62	99.65
	14	2	80	99.62	99.58	99.54	99.55	99.65	99.51	99.57
	15	2	80	99.60	99.62	99.64	99.68	99.75	99.60	99.64
	16	2	80	99.76	99.75	99.74	99.67	99.76	99.67	99.73
	17	2	80	99.64	99.55	99.55	99.53	99.67	99.53	99.57
	18	2	80	99.52	99.43	99.43	99.43	99.53	99.42	99.45
	19	2	80	99.52	99.54	99.52	99.41	99.54	99.40	99.50
	20	2	80	99.39	99.34	99.36	99.42	99.44	99.34	99.38
	21	2	80	99.48	99.49	99.49	99.49	99.49	99.45	99.49
	22	2	80	99.49	99.57	99.61	99.66	99.66	99.49	99.58
	23	2	80	99.66	99.66	99.69	99.79	99.82	99.66	99.70
	24	2	80	99.82	99.85	99.85	99.93	99.95	99.82	99.86
	25	2	80	99.95	99.95	99.93	99.93	99.95	99.92	99.94
	26	2	80	99.93	99.92	99.91	99.91	99.94	99.90	99.92
	27	2	80	99.91	99.90	99.83	99.80	99.93	99.80	99.86
	28	2	80	99.78	99.74	99.63	99.60	99.81	99.58	99.69
	29	2	80	99.65	99.66	99.68	99.75	99.81	99.64	99.68
	1	3	80	99.83	99.83	99.81	99.76	99.83	99.76	99.81
	2	3	80	99.77	99.73	99.64	99.55	99.78	99.55	99.67
99.43 1160	3	3	80	99.51	99.43	0.00	0.00	99.55	99.43	99.48

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WHITE RIVER SHALE PROJECT

WELLS 1315 W. HWY. 40 P 2 UPPER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
3	3	80	0.00	99.42	99.40	99.40	99.43	99.40	99.40
4	3	80	99.41	99.46	99.50	99.53	99.57	99.41	99.48
5	3	80	99.59	99.57	99.53	99.46	99.59	99.46	99.54
6	3	80	99.46	99.46	99.46	99.43	99.46	99.41	99.45
7	3	80	99.40	99.42	99.49	99.54	99.56	99.40	99.46
8	3	80	99.60	99.65	99.65	99.65	99.65	99.58	99.64
9	3	80	99.66	99.67	99.67	99.68	99.68	99.66	99.67
10	3	80	99.68	99.67	99.63	99.58	99.68	99.52	99.64
11	3	80	99.48	99.43	99.40	99.40	99.50	99.40	99.43
12	3	80	99.41	99.56	99.60	99.69	99.69	99.36	99.57
13	3	80	99.69	0.00	0.00	0.00	99.69	99.69	99.69

Bellow land

: 09/24/

WHITE RIVER SHALE PROJECT
WELLS 1310 W. HWY. 40 P 2 UPPER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DA.
99.49 1000 1	4	80	0.00	99.49	99.47	99.44	99.49	99.43	99.46
2	4	80	99.42	99.41	99.45	99.50	99.58	99.40	99.44
3	4	80	99.61	99.65	99.69	99.67	99.69	99.59	99.66
4	4	80	99.67	99.67	99.66	99.60	99.67	99.59	99.65
5	4	80	99.56	99.52	99.48	99.45	99.59	99.45	99.50
6	4	80	99.45	99.46	99.46	99.46	99.47	99.45	99.46
7	4	80	99.48	99.58	99.66	99.75	99.76	99.45	99.62
8	4	80	99.77	99.80	99.80	99.80	99.80	99.76	99.79
9	4	80	99.77	99.73	99.59	99.56	99.78	99.55	99.66
10	4	80	99.51	99.51	99.50	99.55	99.56	99.49	99.52
11	4	80	99.56	99.64	99.67	99.73	99.77	99.56	99.65
12	4	80	99.77	99.77	99.75	99.77	99.79	99.75	99.77
13	4	80	99.79	99.79	99.72	99.65	99.79	99.65	99.74
14	4	80	99.66	99.65	99.61	99.54	99.67	99.53	99.62
15	4	80	99.58	99.59	99.61	99.61	99.64	99.57	99.60
16	4	80	99.68	99.73	99.78	99.76	99.78	99.67	99.74
17	4	80	99.79	99.79	99.79	99.73	99.81	99.73	99.78
18	4	80	99.73	99.73	99.72	99.68	99.73	99.68	99.72
19	4	80	99.68	99.68	99.67	99.65	99.68	99.65	99.67
20	4	80	99.64	99.63	99.57	99.53	99.65	99.52	99.60
21	4	80	99.51	99.52	99.51	99.54	99.54	99.51	99.52
22	4	80	99.54	99.54	99.50	99.47	99.55	99.46	99.51
23	4	80	99.45	99.46	99.46	99.47	99.48	99.45	99.46
24	4	80	99.45	99.45	99.43	99.43	99.48	99.42	99.44
25	4	80	99.45	99.50	99.48	99.48	99.51	99.45	99.48
26	4	80	99.50	99.57	99.56	99.56	99.59	99.50	99.55
27	4	80	99.59	99.62	99.59	99.56	99.63	99.55	99.59
28	4	80	99.58	99.58	99.53	99.46	99.59	99.46	99.54
29	4	80	99.46	99.43	99.36	99.32	99.46	99.31	99.39
30	4	80	99.33	99.33	99.35	99.35	99.35	99.33	99.34
1	5	80	99.35	99.43	99.49	99.49	99.50	99.35	99.44
2	5	80	99.54	99.55	99.57	99.55	99.57	99.53	99.55
3	5	80	99.56	99.57	99.56	99.55	99.57	99.55	99.56
4	5	80	99.55	99.56	99.56	99.56	99.56	99.55	99.56
99.60 0800 5	5	80	99.56	99.57	0.00	0.00	99.57	99.56	99.56

DATE 09/[illegible]4/80

WHITE RIVER SHALE PROJECT
WELLS 13[illegible] W. HWY. 40 P 2 UPPER

	DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN,
99.60 0800	5	5	80	0.00	99.59	99.59	99.56	99.59	99.56	99.58
	6	5	80	99.56	99.56	99.53	99.52	99.56	99.52	99.54
	7	5	80	99.49	99.50	99.49	99.50	99.51	99.47	99.49
	8	5	80	99.49	99.49	99.44	99.41	99.51	99.41	99.46
	9	5	80	99.38	99.34	99.26	99.24	99.41	99.24	99.31
	10	5	80	99.22	99.21	99.18	99.21	99.27	99.15	99.21
	11	5	80	99.27	99.27	99.26	99.25	99.29	99.23	99.26
	12	5	80	99.29	99.32	99.39	99.42	99.45	99.29	99.36
	13	5	80	99.48	99.49	99.50	99.42	99.53	99.42	99.47
	14	5	80	99.42	99.41	99.38	99.27	99.42	99.27	99.37
	15	5	80	99.29	99.29	99.31	99.28	99.31	99.28	99.29
	16	5	80	99.31	99.32	99.33	99.33	99.33	99.30	99.32
	17	5	80	99.34	99.41	99.51	99.53	99.53	99.33	99.45
	18	5	80	99.53	99.55	99.55	99.52	99.55	99.52	99.54
	19	5	80	99.52	99.53	99.52	99.51	99.53	99.50	99.52
	20	5	80	99.50	99.52	99.51	99.50	99.52	99.50	99.51
	21	5	80	99.49	99.50	99.48	99.43	99.50	99.43	99.48
	22	5	80	99.42	99.41	99.29	99.25	99.43	99.25	99.34
	23	5	80	99.24	99.25	99.20	99.14	99.26	99.14	99.21
	24	5	80	99.14	99.14	99.13	99.19	99.23	99.13	99.15
	25	5	80	99.23	99.27	99.28	99.30	99.32	99.23	99.27
	26	5	80	99.33	99.34	99.33	99.30	99.35	99.30	99.33
	27	5	80	99.31	99.32	99.30	99.26	99.33	99.26	99.30
	28	5	80	99.29	99.30	99.31	99.25	99.33	99.25	99.29
	29	5	80	99.28	99.32	99.34	99.32	99.35	99.27	99.32
	30	5	80	99.34	99.34	99.32	99.23	99.34	99.23	99.31
	31	5	80	99.24	99.26	99.30	99.26	99.31	99.23	99.26
	1	6	80	99.27	99.27	99.26	99.25	99.28	99.25	99.27
99.25 0900	2	6	80	99.25	99.25	0.00	0.00	99.25	99.25	99.25

09/24/80

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

WELLS

P 2 UPPER

	DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DA.
99.21 0900	2	6	80	0.00	99.21	99.21	99.18	99.21	99.18	99.20
	3	6	80	99.20	99.25	99.26	99.26	99.26	99.18	99.24
	4	6	80	99.27	99.32	99.31	99.30	99.32	99.26	99.30
	5	6	80	99.27	99.30	99.25	99.24	99.31	99.24	99.26
	6	6	80	99.24	99.28	99.25	99.33	99.34	99.24	99.28
	7	6	80	99.38	99.49	99.45	99.46	99.50	99.35	99.45
	8	6	80	99.48	99.53	99.45	99.42	99.54	99.40	99.47
	9	6	80	99.38	99.35	99.22	99.16	99.40	99.16	99.28
	10	6	80	99.17	99.20	99.12	99.07	99.21	99.06	99.14
	11	6	80	99.09	99.15	99.15	99.11	99.19	99.09	99.13
	12	6	80	99.15	99.18	99.16	99.11	99.20	99.09	99.15
	13	6	80	99.15	99.17	99.15	99.09	99.19	99.09	99.14
	14	6	80	99.09	99.11	99.15	99.15	99.19	99.09	99.12
	15	6	80	99.23	99.26	99.29	99.27	99.29	99.19	99.26
	16	6	80	99.29	99.30	99.31	99.25	99.31	99.25	99.29
	17	6	80	99.25	99.27	99.26	99.24	99.27	99.23	99.26
	18	6	80	99.23	99.23	99.22	99.20	99.23	99.19	99.22
	19	6	80	99.18	99.22	99.21	99.21	99.22	99.18	99.21
	20	6	80	99.22	99.26	99.21	99.20	99.26	99.20	99.22
	21	6	80	99.21	99.25	99.20	99.20	99.26	99.20	99.22
	22	6	80	99.20	99.25	99.18	99.16	99.25	99.16	99.20
	23	6	80	99.15	99.16	99.11	99.11	99.16	99.09	99.13
	24	6	80	99.14	99.21	99.17	99.17	99.22	99.13	99.17
	25	6	80	99.19	99.26	99.22	99.19	99.27	99.18	99.22
	26	6	80	99.20	99.24	99.20	99.15	99.26	99.14	99.20
	27	6	80	99.21	99.31	99.31	99.28	99.34	99.19	99.28
	28	6	80	99.33	99.34	99.33	99.26	99.37	99.25	99.31
	29	6	80	99.27	99.28	99.26	99.21	99.29	99.21	99.26
	30	6	80	99.22	99.27	99.29	99.23	99.33	99.20	99.25
	1	7	80	99.29	99.29	99.31	99.31	99.32	99.29	99.30
	2	7	80	99.33	99.34	99.34	99.33	99.34	99.31	99.33
	3	7	80	99.32	99.32	99.29	99.24	99.32	99.24	99.29
	4	7	80	99.25	99.29	99.26	99.25	99.29	99.24	99.26
	5	7	80	99.25	99.30	99.25	99.25	99.30	99.23	99.26
	6	7	80	99.26	99.31	99.23	99.23	99.32	99.22	99.26
	7	7	80	99.24	99.30	99.26	99.27	99.31	99.23	99.27
99.35 1100	8	7	80	99.28	99.33	0.00	0.00	99.35	99.28	99.30

E 09/24/80

WHITE RIVER SHALE PROJECT

WELLS — 1315 W. HWY. 40 — P 2 UPPER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
2	6	80	0.00	99.21	99.21	99.18	99.21	99.18	99.20
3	6	80	99.20	99.25	99.26	99.26	99.26	99.18	99.24
4	6	80	99.27	99.32	99.31	99.30	99.32	99.26	99.30
5	6	80	99.27	99.30	99.25	99.24	99.31	99.24	99.26
6	6	80	99.24	99.28	99.25	99.33	99.34	99.24	99.28
7	6	80	99.38	99.49	99.45	99.46	99.50	99.35	99.45
8	6	80	99.48	99.53	99.45	99.42	99.54	99.40	99.47
9	6	80	99.38	99.35	99.22	99.16	99.40	99.16	99.28
10	6	80	99.17	99.20	99.12	99.07	99.21	99.06	99.14
11	6	80	99.09	99.15	99.15	99.11	99.19	99.09	99.13
12	6	80	99.15	99.18	99.16	99.11	99.20	99.09	99.15
13	6	80	99.15	99.17	99.15	99.09	99.19	99.09	99.14
14	6	80	99.09	99.11	99.15	99.15	99.19	99.09	99.12
15	6	80	99.23	99.26	99.29	99.27	99.29	99.19	99.26
16	6	80	99.29	99.30	99.31	99.25	99.31	99.25	99.29
17	6	80	99.25	99.27	99.26	99.24	99.27	99.23	99.26
18	6	80	99.23	99.23	99.22	99.20	99.23	99.19	99.22
19	6	80	99.18	99.22	99.21	99.21	99.22	99.18	99.21
20	6	80	99.22	99.26	99.21	99.20	99.26	99.20	99.22
21	6	80	99.21	99.25	99.20	99.20	99.26	99.20	99.22
22	6	80	99.20	99.25	99.18	99.16	99.25	99.16	99.20
23	6	80	99.15	99.16	99.11	99.11	99.16	99.09	99.13
24	6	80	99.14	99.21	99.17	99.17	99.22	99.13	99.17
25	6	80	99.19	99.26	99.22	99.19	99.27	99.18	99.22
26	6	80	99.20	99.24	99.20	99.15	99.26	99.14	99.20
27	6	80	99.21	99.31	99.31	99.28	99.34	99.19	99.28
28	6	80	99.33	99.34	99.33	99.26	99.37	99.25	99.31
29	6	80	99.27	99.28	99.26	99.21	99.29	99.21	99.26
30	6	80	99.22	99.27	99.29	99.23	99.33	99.20	99.25
1	7	80	99.29	99.29	99.31	99.31	99.32	99.29	99.30
2	7	80	99.33	99.34	99.34	99.33	99.34	99.31	99.33
3	7	80	99.32	99.32	99.29	99.24	99.32	99.24	99.29
4	7	80	99.25	99.29	99.26	99.25	99.29	99.24	99.26
5	7	80	99.25	99.30	99.25	99.25	99.30	99.23	99.26
6	7	80	99.26	99.31	99.23	99.23	99.32	99.22	99.26
7	7	80	99.24	99.30	99.26	99.27	99.31	99.23	99.27
8	7	80	99.28	99.33	0.00	0.00	99.35	99.28	99.30

ATE 08/15/80 WHITE RIVER SHALE PROJECT

WELLS 13 & 15 W. HWY. 40 P 2 UPPE.

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN
8	7	80	0.00	99.35	99.30	99.29	99.35	99.25	99.30
9	7	80	99.34	99.39	99.36	99.27	99.43	99.26	99.34
10	7	80	99.29	99.33	99.32	99.27	99.35	99.26	99.30
11	7	80	99.29	99.31	99.31	99.20	99.34	99.20	99.28
12	7	80	99.20	99.23	99.28	99.19	99.32	99.18	99.22
13	7	80	99.23	99.25	99.29	99.25	99.29	99.20	99.25
14	7	80	99.26	99.27	99.28	99.22	99.29	99.21	99.26
15	7	80	99.25	99.28	99.30	99.30	99.32	99.23	99.29
16	7	80	99.33	99.35	99.34	99.26	99.35	99.25	99.32
17	7	80	99.26	99.26	99.22	99.18	99.26	99.18	99.23
18	7	80	99.19	99.24	99.19	99.15	99.24	99.14	99.19
19	7	80	99.15	99.20	99.19	99.18	99.20	99.14	99.18
20	7	80	99.22	99.30	99.28	99.25	99.31	99.19	99.26
21	7	80	99.28	99.35	99.33	99.29	99.36	99.26	99.31
22	7	80	99.31	99.39	99.32	99.27	99.41	99.27	99.32
23	7	80	99.28	99.33	99.28	99.25	99.34	99.25	99.29
24	7	80	99.26	99.28	99.25	99.23	99.30	99.20	99.26
25	7	80	99.27	99.32	99.29	99.22	99.34	99.20	99.27
26	7	80	99.29	99.33	99.30	99.21	99.35	99.20	99.28
27	7	80	99.27	99.29	99.30	99.21	99.33	99.20	99.27
28	7	80	99.25	99.27	99.29	99.19	99.31	99.19	99.25
29	7	80	99.22	99.24	99.29	99.29	99.30	99.20	99.26
30	7	80	99.32	99.33	99.32	99.27	99.33	99.27	99.31
31	7	80	99.32	99.34	99.34	99.31	99.34	99.29	99.33
1	8	80	99.30	99.32	99.28	99.27	99.32	99.26	99.29
2	8	80	99.27	99.31	99.24	99.18	99.32	99.18	99.25
3	8	80	99.18	99.17	99.07	99.05	99.18	99.05	99.12
4	8	80	99.08	99.16	0.00	0.00	99.17	99.07	99.11

E 10/17/80

WELLS

WHITE RIVER SHALE PROJECT
13 W. HWY. 40

P 2 UPPE

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEA
4	8	80	0.00	99.18	99.12	99.08	99.18	99.08	99.12
5	8	80	99.10	99.18	99.12	99.08	99.19	99.07	99.12
6	8	80	99.10	99.21	99.18	99.14	99.23	99.09	99.16
7	8	80	99.16	99.24	99.21	99.15	99.27	99.14	99.19
8	8	80	99.18	99.21	99.17	99.09	99.24	99.08	99.16
9	8	80	99.14	99.17	99.17	99.11	99.20	99.10	99.15
10	8	80	99.16	99.20	99.22	99.17	99.24	99.15	99.19
11	8	80	99.24	99.26	99.27	99.18	99.29	99.17	99.24
12	8	80	99.21	99.22	99.20	99.16	99.22	99.16	99.20
13	8	80	99.18	99.19	99.18	99.16	99.19	99.16	99.18
14	8	80	99.18	99.17	99.13	99.07	99.18	99.06	99.14
15	8	80	99.10	99.13	99.11	99.14	99.14	99.08	99.12
16	8	80	99.17	99.21	99.21	99.20	99.21	99.15	99.20
17	8	80	99.24	99.28	99.23	99.16	99.29	99.16	99.23
18	8	80	99.16	99.15	99.09	99.06	99.16	99.06	99.12
19	8	80	99.08	99.15	99.15	99.22	99.25	99.06	99.15
20	8	80	99.27	99.34	99.31	99.28	99.34	99.25	99.30
21	8	80	99.30	99.35	99.29	99.23	99.35	99.23	99.29
22	8	80	99.24	99.28	99.22	99.17	99.30	99.16	99.23
23	8	80	99.19	99.29	99.29	99.28	99.32	99.19	99.26
24	8	80	99.32	99.34	99.32	99.28	99.35	99.26	99.32
25	8	80	99.31	99.30	99.33	99.25	99.35	99.25	99.30
26	8	80	99.29	99.30	99.33	99.28	99.34	99.27	99.30
27	8	80	99.30	99.27	99.25	99.16	99.30	99.16	99.25
28	8	80	99.21	99.23	99.23	99.18	99.24	99.17	99.21
29	8	80	99.20	99.22	99.22	99.19	99.22	99.18	99.21
30	8	80	99.18	99.18	99.12	99.11	99.19	99.10	99.15
31	8	80	99.19	99.21	99.18	99.17	99.21	99.15	99.19
1	9	80	99.21	99.29	99.25	99.22	99.29	99.18	99.24
2	9	80	99.24	99.29	99.24	0.00	99.30	99.23	99.26

10/27/8

WELLS

W H I T E R I V . R S H A L E P R O J E C T
1 3 1 5 W . H W Y . 4 0

P 2 UPPER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
22	9	80	0.00	99.20	99.14	99.07	99.20	99.06	99.12
23	9	80	99.09	99.09	99.06	99.00	99.10	98.99	99.06
24	9	80	99.05	99.05	99.04	99.01	99.06	98.99	99.04
25	9	80	99.09	99.09	99.10	99.05	99.12	99.04	99.08
26	9	80	99.12	99.14	99.11	99.05	99.14	99.04	99.11
27	9	80	99.11	99.11	99.05	99.01	99.12	99.01	99.07
28	9	80	99.04	99.04	99.00	98.99	99.05	98.99	99.02
29	9	80	99.07	99.12	99.12	99.12	99.12	99.02	99.11
30	9	80	99.15	99.24	99.35	99.33	99.43	99.13	99.27
1	10	80	99.35	99.39	99.35	99.35	99.39	99.33	99.36
2	10	80	99.40	99.48	0.00	0.00	99.49	99.38	99.43

Tape was started on 9-2-80 @1430, Several punches were made before start of tape, but battery was dead on arrival 9-22-80, after only one punch on tape!

B.H.

WELL P-2 LOWER

WELL P-2 UPPER

RUN DATE 10/08/79

WHITE RIVER SHALE PROJECT

WELLS — 1315 W. HWY. 40 — P 2 LOWER

DA	MO	YR	0600	1200	1800.	2400	MAX	MIN	MEAN/DAY
1	10	79	0.00	154.87	154.79	154.76	154.87	154.75	154.78
2	10	79	154.76	154.78	154.67	154.65	154.79	154.63	154.72
3	10	79	154.69	154.84	154.82	154.83	154.87	154.67	154.80
4	10	79	154.86	154.89	154.80	154.76	154.91	154.74	154.83
5	10	79	154.81	154.82	154.77	154.74	154.85	154.70	154.79
6	10	79	154.80	154.79	154.73	154.65	154.81	154.64	154.74
7	10	79	154.67	154.67	154.63	154.57	154.68	154.57	154.64
8	10	79	154.59	154.59	154.58	154.57	154.62	154.55	154.58
9	10	79	154.68	154.79	154.80	154.78	154.82	154.65	154.76
10	10	79	154.84	154.84	154.77	154.71	154.84	154.71	154.79
11	10	79	154.74	154.73	154.63	154.59	154.75	154.59	154.68
12	10	79	154.60	154.62	154.59	154.58	154.62	154.58	154.60
13	10	79	154.62	154.65	154.58	154.56	154.65	154.56	154.60
14	10	79	154.56	154.60	154.56	154.61	154.64	154.55	154.59
15	10	79	154.65	154.70	154.62	154.63	154.73	154.58	154.65
16	10	79	154.69	154.81	154.78	154.76	154.84	154.67	154.76
17	10	79	154.75	154.74	154.62	154.59	154.77	154.56	154.68
18.	10	79	154.62	154.63	154.53	154.45	154.64	154.45	154.56
19	10	79	154.35	154.29	154.19	154.15	154.43	154.12	154.24
20	10	79	154.22	154.24	154.31	154.36	154.42	154.22	154.29
21	10	79	154.42	154.50	154.61	154.72	154.79	154.42	154.56
22	10	79	154.83	154.84	154.85	154.84	154.87	154.82	154.84
23	10	79	154.86	154.84	154.80	154.76	154.87	154.75	154.82
24	10	79	154.81	154.80	154.75	154.72	154.82	154.71	154.77
25	10	79	154.76	154.74	154.65	154.60	154.76	154.60	154.69
26	10	79	154.62	154.63	100.54	0.00	154.63	100.54	150.46

Tape was pulling through guide holes on arrival 11-05-79

RUN DATE 12/ /79

WHITE RIVER SHALE PROJECT

WELLS

1315 W. HWY. 40

P 2 LOWER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
5	11	79	0.00	154.89	154.88	154.90	154.95	154.88	154.89
6	11	79	154.96	154.94	154.88	154.82	154.96	154.82	154.90
7	11	79	154.82	154.77	154.71	154.63	154.84	154.63	154.73
8	11	79	154.61	154.51	154.42	154.42	154.63	154.40	154.49
9	11	79	154.50	154.52	154.50	154.54	154.58	154.48	154.52
10	11	79	154.65	154.67	154.64	154.64	154.68	154.61	154.65
11	11	79	154.65	154.67	154.71	154.83	154.88	154.64	154.72
12	11	79	154.92	154.97	154.93	154.94	154.99	154.89	154.94
13	11	79	154.96	154.99	154.92	154.93	154.99	154.89	154.95
14	11	79	154.95	154.9	154.96	154.98	155.02	154.94	154.97
15	11	79	155.02	155.09	155.03	155.05	155.11	155.00	155.05
16	11	79	155.05	155.04	154.93	154.90	155.08	154.89	154.98
17	11	79	154.85	154.80	154.66	154.60	154.90	154.59	154.72
18	11	79	0.00	0.00	0.00	0.00	0.00	50000.00	.00

Tape slow!
Tape was pulling through holes

WELLS

WHITE RIVER VALE PROJECT
1315 W. HWY. 40 P2 LOWER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
3	12	79	0.00	0.00	155.22	155.29	155.34	155.22	155.26
4	12	79	155.31	155.24	155.06	154.93	155.34	154.90	155.14
5	12	79	154.84	154.82	154.82	154.82	154.88	154.80	154.83
6	12	79	154.83	154.80	154.75	154.79	154.86	154.74	154.79
7	12	79	154.85	154.86	154.86	154.72	154.97	154.85	154.87
8	12	79	154.99	155.00	155.02	155.06	155.10	154.98	155.02
9	12	79	155.11	155.12	155.04	155.00	155.12	154.99	155.07
10	12	79	154.89	154.79	154.63	154.62	154.93	154.60	154.73
11	12	79	154.73	154.83	154.87	154.95	154.97	154.67	154.85
12	12	79	154.98	154.99	154.94	155.01	155.08	154.93	154.98
13	12	79	155.10	155.20	155.17	155.20	155.23	155.08	155.17
14	12	79	155.20	155.21	155.12	155.11	155.22	155.10	155.16
15	12	79	155.07	155.05	154.95	154.98	155.10	154.93	155.01
16	12	79	155.00	155.10	155.11	155.21	155.25	154.99	155.10
17	12	79	155.23	155.25	155.21	155.23	155.29	155.20	155.23
18	12	79	155.21	155.17	155.05	155.07	155.25	155.03	155.13
19	12	79	155.04	155.02	154.95	154.96	155.09	154.92	154.99
20	12	79	154.95	154.91	154.84	154.82	154.98	154.81	154.88
21	12	79	154.77	154.66	154.55	154.47	154.83	154.47	154.61
22	12	79	154.45	154.44	154.48	154.56	154.62	154.42	154.48
23	12	79	154.67	154.78	154.84	154.91	154.95	154.64	154.80
24	12	79	154.96	154.97	154.96	154.96	154.97	154.95	154.96
25	12	79	154.96	154.97	154.95	154.96	154.97	154.94	154.96
26	12	79	154.96	154.97	154.91	154.91	154.97	154.90	154.94
27	12	79	154.90	154.95	154.94	154.98	154.99	154.90	154.94
28	12	79	155.03	155.11	155.08	155.10	155.12	155.00	155.08
29	12	79	155.08	155.07	154.99	154.99	155.10	154.97	155.03
30	12	79	154.98	155.03	155.02	155.10	155.12	154.97	155.03
31	12	79	155.09	155.10	0.00	0.00	155.12	155.08	155.10

RUN DATE 02/ /80

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

WELLS

P 2 LOWER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
31	12	79	0.00	155.13	155.07	155.08	155.13	155.05	155.09
1	1	80	155.01	154.97	154.93	154.96	155.07	154.91	154.97
2	1	80	154.96	154.98	155.00	155.06	155.09	154.94	155.00
3	1	80	155.06	155.01	154.95	154.95	155.09	154.92	154.99
4	1	80	154.97	154.96	154.94	154.96	154.99	154.93	154.96
5	1	80	154.98	154.95	154.86	154.77	154.99	154.75	154.89
6	1	80	154.67	154.68	154.70	154.69	154.70	154.65	154.69
7	1	80	154.68	154.66	154.63	154.64	154.69	154.63	154.65
8	1	80	154.62	154.62	154.65	154.71	154.72	154.61	154.65
9	1	80	154.72	154.70	154.61	154.51	154.72	154.43	154.64
10	1	80	154.33	154.25	154.39	154.74	154.85	154.22	154.43
11	1	80	154.90	154.95	154.90	154.89	154.96	154.86	154.91
12	1	80	154.87	154.85	154.79	154.79	154.88	154.77	154.82
13	1	80	154.77	154.84	154.81	154.79	154.85	154.76	154.80
14	1	80	154.66	154.70	154.74	154.83	154.85	154.61	154.73
15	1	80	154.84	154.89	154.88	154.93	154.95	154.83	154.88
16	1	80	154.91	154.92	154.90	154.92	154.94	154.88	154.91
17	1	80	154.88	154.85	154.81	154.80	154.93	154.80	154.84
18	1	80	154.71	154.63	154.65	154.79	154.88	154.61	154.70
19	1	80	154.90	154.97	155.03	155.11	155.16	154.89	155.00
20	1	80	155.19	155.22	155.21	155.19	155.24	155.18	155.20
21	1	80	155.18	155.10	155.08	155.12	155.19	155.08	155.12
22	1	80	155.19	155.20	155.20	155.20	155.22	155.15	155.20
23	1	80	155.24	155.26	155.25	155.22	155.27	155.20	155.24
24	1	80	155.14	155.07	154.96	154.88	155.19	154.84	155.01
25	1	80	154.76	154.68	154.61	154.66	154.81	154.59	154.68
26	1	80	154.65	154.66	154.65	154.73	154.74	154.65	154.67
27	1	80	154.69	154.66	154.57	154.62	154.73	154.55	154.64
28	1	80	154.65	154.70	154.70	154.73	154.74	154.65	154.70
29	1	80	154.63	154.55	154.50	154.70	154.79	154.47	154.60
30	1	80	154.85	0.00	0.00	0.00	154.88	154.82	154.85

Clock was stopped on arrival to pull type 2

DATE 03/31/80

WHITE RIVER SHALE PROJECT

WELLS — 1,315 W. HWY. 40 — P 2 LOWER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
1	2	80	0.00	155.25	155.19	155.21	155.26	155.17	155.21
2	2	80	155.25	155.26	155.25	155.25	155.29	155.23	155.25
3	2	80	155.26	155.23	155.15	155.12	155.27	155.11	155.19
4	2	80	155.14	155.16	155.17	155.20	155.24	155.14	155.17
5	2	80	155.27	155.30	155.25	155.19	155.31	155.19	155.25
6	2	80	155.14	155.04	154.92	154.85	155.17	154.83	154.99
7	2	80	154.80	154.78	154.85	154.96	154.99	154.78	154.85
8	2	80	155.05	155.12	155.12	155.13	155.15	155.00	155.10
9	2	80	155.18	155.24	155.21	155.20	155.25	155.16	155.21
10	2	80	155.17	155.14	155.01	155.02	155.19	155.00	155.08
11	2	80	155.00	155.01	154.97	155.00	155.02	154.95	154.99
12	2	80	154.99	154.97	154.89	154.92	155.00	154.88	154.94
13	2	80	154.88	154.88	154.83	154.87	154.91	154.81	154.86
14	2	80	154.81	154.79	154.71	154.78	154.86	154.70	154.77
15	2	80	154.81	154.89	154.89	154.96	154.99	154.81	154.89
16	2	80	155.00	155.06	154.99	154.94	155.09	154.94	155.00
17	2	80	154.86	154.79	154.77	154.77	154.93	154.75	154.80
18	2	80	154.73	154.65	154.65	154.67	154.79	154.62	154.68
19	2	80	154.77	154.79	154.75	154.62	154.80	154.61	154.73
20	2	80	154.57	154.56	154.62	154.70	154.74	154.55	154.61
21	2	80	154.78	154.79	154.76	154.76	154.79	154.75	154.77
22	2	80	154.79	154.91	154.96	154.98	154.99	154.77	154.91
23	2	80	154.97	155.00	155.07	155.17	155.19	154.96	155.05
24	2	80	155.21	155.30	155.31	155.36	155.37	155.19	155.30
25	2	80	155.37	155.40	155.32	155.34	155.41	155.30	155.36
26	2	80	155.32	155.35	155.28	155.30	155.36	155.26	155.31
27	2	80	155.28	155.26	155.16	155.15	155.31	155.14	155.21
28	2	80	155.09	155.04	154.91	154.93	155.15	154.87	154.99
29	2	80	154.94	154.98	155.01	155.12	155.17	154.93	155.02
1	3	80	155.17	155.19	155.14	155.12	155.22	155.10	155.16
2	3	80	155.09	155.04	154.92	154.85	155.14	154.85	154.98
3	3	80	154.77	154.71	0.00	0.00	154.84	154.70	154.74

07/15/80

WELLS

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

P 2 LOWER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
3	3	80	0.00	154.70	154.63	154.62	154.70	154.61	154.64
4	3	80	154.67	154.73	154.80	154.83	154.88	154.65	154.76
5	3	80	154.90	154.88	154.82	154.74	154.91	154.73	154.83
6	3	80	154.72	154.73	154.75	154.71	154.76	154.67	154.73
7	3	80	154.64	154.67	154.78	154.86	154.89	154.63	154.74
8	3	80	154.94	155.00	155.02	155.01	155.03	154.91	154.99
9	3	80	155.03	155.05	155.04	155.03	155.06	155.03	155.04
10	3	80	155.04	155.04	154.97	154.91	155.05	154.88	154.99
11	3	80	154.81	154.77	154.67	154.66	154.86	154.64	154.73
12	3	80	154.62	154.80	154.90	155.00	155.04	154.61	154.83
13	3	80	155.02	155.05	154.98	154.99	155.07	154.94	155.01
14	3	80	155.01	154.99	154.88	154.85	155.02	154.84	154.93
15	3	80	154.81	154.79	154.76	154.75	154.86	154.71	154.78
16	3	80	154.87	154.95	155.05	155.16	155.23	154.85	155.01
17	3	80	155.26	155.26	155.17	155.03	155.27	155.03	155.18
18	3	80	154.99	154.90	154.84	154.79	155.03	154.78	154.88
19	3	80	154.84	154.85	154.84	154.89	154.96	154.83	154.86
20	3	80	155.02	155.07	155.03	154.93	155.08	154.91	155.01
21	3	80	154.87	154.82	154.74	154.77	154.90	154.73	154.80
22	3	80	154.79	154.79	154.76	154.77	154.79	154.75	154.78
23	3	80	154.79	154.85	154.86	154.89	154.91	154.78	154.85
24	3	80	154.91	154.89	154.78	154.77	154.91	154.76	154.84
25	3	80	154.75	154.75	154.75	154.86	154.89	154.75	154.78
26	3	80	154.89	154.97	154.93	154.92	154.99	154.89	154.93
27	3	80	154.89	154.87	154.79	154.85	154.93	154.76	154.85
28	3	80	154.86	154.94	154.97	155.04	155.10	154.86	154.95
29	3	80	155.09	155.12	155.08	155.02	155.14	155.00	155.08
30	3	80	154.96	154.81	154.76	154.81	155.02	154.73	154.83
31	3	80	154.84	154.84	154.83	154.85	154.89	154.81	154.84
1	4	80	154.90	154.89	0.00	0.00	154.91	154.88	154.90

ATE 07/18/80

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

WELLS

P 2 LOWER

154.70 0600

DAY	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
1	4	80	0.00	154.90	154.84	154.82	154.90	154.82	154.85
2	4	80	154.77	154.79	154.87	154.95	155.00	154.74	154.85
3	4	80	155.08	155.14	155.13	155.12	155.16	155.06	155.12
4	4	80	155.15	155.15	155.06	155.00	155.15	155.00	155.09
5	4	80	154.96	154.91	154.84	154.84	155.00	154.82	154.89
6	4	80	154.88	154.89	154.89	154.87	154.90	154.86	154.88
7	4	80	154.93	155.05	155.14	155.24	155.26	154.87	155.09
8	4	80	155.29	155.34	155.29	155.26	155.35	155.26	155.30
9	4	80	155.24	155.17	154.96	154.88	155.25	154.86	155.06
10	4	80	154.85	154.90	154.87	154.95	154.96	154.85	154.89
11	4	80	154.96	155.09	155.11	155.21	155.25	154.94	155.09
12	4	80	155.22	155.26	155.17	155.27	155.30	155.16	155.23
13	4	80	155.30	155.32	155.15	155.11	155.33	155.08	155.22
14	4	80	155.09	155.10	154.99	154.97	155.13	154.93	155.04
15	4	80	155.00	155.07	155.02	155.08	155.14	155.00	155.04
16	4	80	155.16	155.26	155.27	155.27	155.31	155.15	155.24
17	4	80	155.34	155.36	155.27	155.18	155.36	155.17	155.29
18	4	80	155.21	155.23	155.15	155.10	155.23	155.10	155.17
19	4	80	155.13	155.16	155.10	155.06	155.16	155.06	155.11
20	4	80	155.07	155.07	154.99	154.94	155.09	154.94	155.02
21	4	80	154.94	154.97	154.95	154.99	154.99	154.94	154.96
22	4	80	154.99	155.01	154.93	154.87	155.03	154.86	154.95
23	4	80	154.87	154.91	154.91	154.93	154.93	154.86	154.91
24	4	80	154.88	154.88	154.84	154.87	154.91	154.83	154.87
25	4	80	154.91	154.98	154.92	154.97	154.99	154.89	154.95
26	4	80	155.00	155.11	155.04	155.08	155.12	154.99	155.06
27	4	80	155.13	155.20	155.09	155.10	155.21	155.05	155.13
28	4	80	155.12	155.14	155.02	154.97	155.15	154.96	155.06
29	4	80	154.95	154.91	154.79	154.85	154.98	154.75	154.88
30	4	80	154.85	154.86	154.86	154.89	154.93	154.84	154.87
1	5	80	154.94	155.01	155.03	155.07	155.11	154.93	155.01
2	5	80	155.12	155.16	155.13	155.13	155.17	155.11	155.14
3	5	80	155.16	155.18	155.13	155.12	155.19	155.10	155.15
4	5	80	155.16	155.18	155.13	155.15	155.18	155.12	155.16
5	5	80	155.19	155.21	0.00	0.00	155.21	155.18	155.19

155.20 0900 +1hr

WTE 07/16/80

WELLS

WHITE RIVER VALE PROJECT
1315 W. HWY. 40

P 2 LOWER

155.21 0900

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
5	5	80	0.00	155.21	155.18	155.13	155.21	155.13	155.17
6	5	80	155.13	155.13	155.09	155.05	155.14	155.05	155.10
7	5	80	155.06	155.09	155.05	155.09	155.11	155.02	155.07
8	5	80	155.07	155.09	155.01	154.97	155.09	154.95	155.03
9	5	80	154.92	154.88	154.77	154.76	154.94	154.75	154.83
10	5	80	154.75	154.76	154.70	154.79	154.84	154.67	154.75
11	5	80	154.83	154.88	154.81	154.85	154.91	154.77	154.84
12	5	80	154.91	154.96	155.00	155.08	155.13	154.90	154.99
13	5	80	155.13	155.18	155.13	155.07	155.20	155.05	155.13
14	5	80	155.06	155.03	154.95	154.89	155.08	154.86	154.98
15	5	80	154.93	154.93	154.92	154.91	154.96	154.88	154.92
16	5	80	154.98	155.00	154.96	154.98	155.05	154.92	154.98
17	5	80	155.06	155.14	155.22	155.22	155.25	155.05	155.16
18	5	80	155.27	155.29	155.27	155.26	155.29	155.20	155.26
19	5	80	155.23	155.26	155.23	155.16	155.27	155.16	155.22
20	5	80	155.18	155.24	155.21	155.16	155.24	155.16	155.20
21	5	80	155.17	155.21	155.13	155.09	155.22	155.09	155.15
22	5	80	155.06	155.06	154.93	154.88	155.08	154.86	154.98
23	5	80	154.86	154.90	154.81	154.76	154.92	154.75	154.83
24	5	80	154.74	154.76	154.76	154.88	154.91	154.73	154.79
25	5	80	154.91	154.96	154.95	155.03	155.07	154.91	154.96
26	5	80	155.08	155.13	155.04	155.03	155.14	155.00	155.07
27	5	80	155.03	155.07	155.01	155.01	155.08	155.00	155.03
28	5	80	155.03	155.08	155.03	154.96	155.09	154.94	155.02
29	5	80	155.05	155.11	155.09	155.07	155.14	155.04	155.08
30	5	80	155.13	155.12	155.03	154.93	155.14	154.92	155.05
31	5	80	154.96	155.02	155.03	154.97	155.07	154.94	155.00
1	6	80	155.01	155.01	154.96	154.93	155.03	154.91	154.98
2	6	80	154.96	154.95	0.00	0.00	154.96	154.95	154.96

1.94 0900

RUN DATE 07/18/80

WELLS

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

P-2 LOWER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
2	6	80	0.00	154.94	154.92	154.87	154.94	154.86	154.90
3	6	80	154.93	154.99	155.01	154.99	155.02	154.91	154.98
4	6	80	155.04	155.10	155.04	155.01	155.11	154.99	155.05
5	6	80	155.02	155.05	155.00	154.98	155.08	154.95	155.01
6	6	80	154.97	155.01	155.00	155.10	155.14	154.95	155.02
7	6	80	155.20	155.31	155.25	155.26	155.32	155.16	155.26
8	6	80	155.29	155.36	155.25	155.21	155.37	155.21	155.28
9	6	80	155.22	155.27	155.14	155.07	155.28	155.06	155.18
10	6	80	155.08	155.11	155.02	154.96	155.12	154.94	155.05
11	6	80	154.99	155.08	155.04	155.02	155.09	154.99	155.03
12	6	80	155.06	155.12	155.06	155.02	155.13	155.00	155.07
13	6	80	155.09	155.12	155.06	155.00	155.13	155.00	155.07
14	6	80	155.00	155.02	155.04	155.07	155.16	155.00	155.03
15	6	80	155.22	155.27	155.28	155.23	155.29	155.18	155.25
16	6	80	155.29	155.32	155.29	155.21	155.32	155.21	155.28
17	6	80	155.22	155.24	155.20	155.13	155.24	155.13	155.20
18	6	80	155.14	155.16	155.11	155.07	155.16	155.07	155.12
19	6	80	155.10	155.14	155.13	155.13	155.14	155.08	155.12
20	6	80	155.16	155.22	155.14	155.11	155.23	155.10	155.16
21	6	80	155.13	155.19	155.13	155.10	155.20	155.10	155.14
22	6	80	155.12	155.17	155.10	155.06	155.18	155.06	155.11
23	6	80	155.06	155.07	155.00	155.00	155.09	154.97	155.03
24	6	80	155.08	155.17	155.10	155.10	155.18	155.05	155.11
25	6	80	155.14	155.22	155.16	155.13	155.24	155.11	155.16
26	6	80	155.16	155.18	155.13	155.07	155.19	155.05	155.13
27	6	80	155.16	155.31	155.28	155.25	155.34	155.11	155.25
28	6	80	155.32	155.36	155.31	155.21	155.37	155.20	155.30
29	6	80	155.24	155.24	155.20	155.12	155.26	155.12	155.20
30	6	80	155.15	155.23	155.27	155.16	155.33	155.12	155.20
1	7	80	155.29	155.30	155.30	155.27	155.32	155.26	155.29
2	7	80	155.33	155.36	155.36	155.30	155.37	155.30	155.34
3	7	80	155.30	155.31	155.26	155.16	155.31	155.15	155.26
4	7	80	155.20	155.26	155.23	155.17	155.26	155.16	155.21
5	7	80	155.18	155.26	155.22	155.18	155.26	155.17	155.21
6	7	80	155.20	155.28	155.19	155.17	155.29	155.15	155.21
7	7	80	155.18	155.25	155.22	155.23	155.26	155.17	155.22
8	7	80	155.27	155.33	0.00	0.00	155.35	155.26	155.30

WHITE RIVER SHALE PROJECT

WELLS 1315 W. HWY. 40 P 2 LOWER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN
8	7	80	0.00	155.35	155.27	155.31	155.35	155.23	155.30
9	7	80	155.35	155.40	155.33	155.25	155.41	155.24	155.33
10	7	80	155.28	155.34	155.26	155.25	155.36	155.22	155.28
11	7	80	155.28	155.31	155.25	155.15	155.33	155.14	155.25
12	7	80	155.17	155.21	155.20	155.13	155.27	155.11	155.18
13	7	80	155.22	155.21	155.23	155.21	155.24	155.19	155.22
14	7	80	155.24	155.26	155.23	155.16	155.27	155.14	155.22
15	7	80	155.22	155.27	155.28	155.26	155.29	155.19	155.26
16	7	80	155.34	155.36	155.33	155.23	155.37	155.22	155.31
17	7	80	155.23	155.24	155.15	155.10	155.24	155.10	155.18
18	7	80	155.14	155.19	155.12	155.05	155.19	155.04	155.13
19	7	80	155.07	155.14	155.13	155.13	155.15	155.04	155.12
20	7	80	155.21	155.29	155.27	155.24	155.30	155.16	155.25
21	7	80	155.30	155.38	155.35	155.30	155.39	155.27	155.33
22	7	80	155.34	155.40	155.32	155.28	155.41	155.27	155.33
23	7	80	155.29	155.35	155.27	155.25	155.36	155.25	155.29
24	7	80	155.26	155.30	155.23	155.25	155.32	155.20	155.26
25	7	80	155.29	155.35	155.26	155.23	155.36	155.20	155.28
26	7	80	155.31	155.38	155.30	155.23	155.39	155.21	155.31
27	7	80	155.29	155.33	155.29	155.22	155.36	155.21	155.28
28	7	80	155.28	155.32	155.28	155.18	155.34	155.17	155.27
29	7	80	155.22	155.26	155.28	155.30	155.33	155.21	155.27
30	7	80	155.35	155.36	155.35	155.28	155.38	155.27	155.34
31	7	80	155.37	155.39	155.38	155.33	155.39	155.33	155.37
1	8	80	155.34	155.35	155.32	155.27	155.35	155.26	155.32
2	8	80	155.30	155.34	155.25	155.15	155.35	155.15	155.26
3	8	80	155.15	155.14	155.02	155.03	155.16	155.00	155.09
4	8	80	155.09	155.15	0.00	0.00	155.16	155.07	155.11

09/17/80

WELLS

WHITE RIVER SHALE PROJECT
13.5 W. HWY. 40

P2 LOWER

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/L
4	8	80	0.00	155.16	155.10	155.09	155.16	155.06	155.11
5	8	80	155.13	155.20	155.11	155.09	155.21	155.08	155.13
6	8	80	155.13	155.25	155.18	155.16	155.26	155.10	155.18
7	8	80	155.21	155.29	155.23	155.19	155.31	155.17	155.23
8	8	80	155.23	155.27	155.19	155.14	155.29	155.12	155.21
9	8	80	155.17	155.24	155.19	155.15	155.26	155.13	155.19
10	8	80	155.21	155.28	155.27	155.24	155.31	155.19	155.25
11	8	80	155.32	155.37	155.31	155.19	155.39	155.18	155.30
12	8	80	155.23	155.22	155.13	155.10	155.23	155.08	155.17
13	8	80	155.14	155.14	155.11	155.12	155.14	155.09	155.13
14	8	80	155.14	155.12	155.06	155.02	155.15	155.00	155.09
15	8	80	155.09	155.10	155.08	155.12	155.13	155.06	155.10
16	8	80	155.17	155.21	155.22	155.22	155.24	155.15	155.21
17	8	80	155.27	155.31	155.25	155.15	155.32	155.15	155.25
18	8	80	155.14	155.13	155.07	155.03	155.15	155.03	155.09
19	8	80	155.07	155.14	155.15	155.27	155.31	155.04	155.16
20	8	80	155.34	155.42	155.36	155.35	155.43	155.32	155.37
21	8	80	155.38	155.44	155.35	155.29	155.45	155.28	155.37
22	8	80	155.29	155.36	155.25	155.22	155.37	155.20	155.28
23	8	80	155.26	155.37	155.34	155.38	155.40	155.25	155.34
24	8	80	155.41	155.45	155.41	155.39	155.47	155.34	155.41
25	8	80	155.40	155.40	155.42	155.38	155.46	155.37	155.40
26	8	80	155.42	155.47	155.45	155.42	155.50	155.41	155.44
27	8	80	155.43	155.42	155.35	155.26	155.44	155.25	155.37
28	8	80	155.33	155.36	155.34	155.27	155.37	155.27	155.33
29	8	80	155.31	155.33	155.34	155.28	155.35	155.28	155.32
30	8	80	155.29	155.27	155.21	155.20	155.29	155.16	155.24
31	8	80	155.30	155.32	155.28	155.28	155.32	155.27	155.30
1	9	80	155.36	155.42	155.38	155.35	155.42	155.33	155.38
2	9	80	155.38	155.42	155.39	0.00	155.43	155.37	155.40

10/27/8

WHITE RIVER SHALE PROJECT

WELLS — 1315 W. HWY. 40 — P 2 LOWER

	DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
1400	2	9	80	0.00	0.00	155.30	155.27	155.32	155.27	155.28
	3	9	80	155.28	155.36	155.33	155.37	155.40	155.27	155.34
	4	9	80	155.43	155.51	155.45	155.44	155.52	155.41	155.46
	5	9	80	155.48	155.57	155.49	155.45	155.59	155.43	155.50
	6	9	80	155.47	155.51	155.44	155.38	155.52	155.37	155.45
	7	9	80	155.40	155.43	155.42	155.41	155.47	155.40	155.42
	8	9	80	155.47	155.53	155.56	155.54	155.60	155.46	155.53
	9	9	80	155.57	155.59	155.59	155.55	155.63	155.54	155.58
	10	9	80	155.54	155.50	155.49	155.41	155.57	155.40	155.49
	11	9	80	155.43	155.40	155.38	155.36	155.44	155.35	155.39
	12	9	80	155.41	155.42	155.42	155.39	155.44	155.37	155.41
	13	9	80	155.43	155.41	155.37	155.38	155.43	155.35	155.40
	14	9	80	155.45	155.49	155.50	155.47	155.51	155.43	155.48
	15	9	80	155.52	155.51	155.43	155.39	155.52	155.39	155.46
	16	9	80	155.40	155.41	155.38	155.40	155.45	155.37	155.40
	17	9	80	155.46	155.48	155.45	155.45	155.49	155.42	155.46
	18	9	80	155.51	155.54	155.41	155.36	155.55	155.35	155.46
	19	9	80	155.34	155.38	155.29	155.33	155.42	155.26	155.34
	20	9	80	155.42	155.48	155.36	155.31	155.50	155.30	155.40
	21	9	80	155.27	155.33	155.35	155.48	155.54	155.26	155.36
	22	9	80	155.55	155.64	155.69	155.65	155.77	155.55	155.63
	23	9	80	155.68	155.69	155.62	155.60	155.71	155.57	155.65
	24	9	80	155.64	155.66	155.63	155.62	155.69	155.57	155.64
	25	9	80	155.71	155.75	155.73	155.68	155.78	155.65	155.72
	26	9	80	155.76	155.77	155.72	155.67	155.78	155.66	155.73
	27	9	80	155.73	155.72	155.66	155.60	155.74	155.60	155.68
	28	9	80	155.65	155.65	155.59	155.59	155.66	155.57	155.62
	29	9	80	155.70	155.76	155.76	155.78	155.81	155.65	155.75
	30	9	80	155.85	155.90	155.89	155.86	155.98	155.82	155.88
	1	10	80	155.91	155.97	155.90	155.90	155.99	155.87	155.92
56 1500 1900 hrs	2	10	80	155.98	156.04	0.00	0.00	156.06	155.95	156.01

WELL P-3

RUN DATE 10/08/79

WHITE RIVER SHALE PROJECT

WELLS — 1315 W. HWY. 40 — P 3

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
1	10	79	0.00	0.00	455.04	454.82	455.12	454.76	454.92
2	10	79	454.74	454.69	454.55	454.39	454.77	454.38	454.59
3	10	79	454.41	454.72	454.94	455.02	455.08	454.38	454.77
4	10	79	455.16	455.30	455.27	455.03	455.33	454.98	455.19
5	10	79	454.96	454.95	454.90	454.77	454.97	454.77	454.90
6	10	79	454.77	454.81	454.75	454.59	454.85	454.57	454.73
7	10	79	454.65	454.70	454.76	454.68	454.77	454.65	454.70
8	10	79	454.69	454.86	454.95	454.95	454.95	454.68	454.86
9	10	79	455.00	455.23	455.35	455.34	455.35	454.95	455.23
10	10	79	455.32	455.25	455.05	454.72	455.34	454.66	455.09
11	10	79	454.60	454.54	454.35	454.26	454.66	454.26	454.44
12	10	79	454.21	454.12	454.09	454.04	454.26	454.04	454.11
13	10	79	454.04	454.05	454.03	453.87	454.06	453.85	454.00
14	10	79	453.81	453.77	453.74	453.70	453.83	453.69	453.75
15	10	79	453.71	453.66	453.59	453.47	453.72	453.47	453.61
16	10	79	453.53	453.82	453.98	453.96	453.98	453.47	453.83
17	10	79	453.98	453.97	453.66	453.49	453.98	453.49	453.78
18	10	79	453.49	453.54	453.51	453.30	453.56	453.23	453.46
19	10	79	453.00	452.63	452.21	451.88	453.17	451.82	452.43
20	10	79	451.82	451.85	451.95	452.03	452.07	451.82	451.91
21	10	79	452.08	452.08	452.09	452.18	452.22	452.07	452.11
22	10	79	452.28	452.40	452.53	452.65	452.68	452.24	452.47
23	10	79	452.78	452.98	453.09	453.11	453.13	452.71	452.99
24	10	79	453.16	453.27	453.33	453.30	453.33	453.14	453.27
25	10	79	453.20	453.16	453.04	452.90	453.21	452.90	453.08
26	10	79	452.90	452.90	452.92	453.09	453.20	452.90	452.95
27	10	79	453.35	453.62	453.74	453.73	453.74	453.25	453.61
28	10	79	453.60	453.41	453.00	452.66	453.67	452.60	453.17
29	10	79	452.53	452.41	452.41	452.48	452.60	452.41	452.46
30	10	79	452.72	453.04	453.20	453.23	453.23	452.60	453.05
31	10	79	453.21	453.12	453.02	452.97	453.23	452.97	453.08
1	11	79	453.02	453.14	453.20	453.19	453.21	452.97	453.14
2	11	79	453.30	453.54	453.67	453.67	453.67	453.23	453.55
3	11	79	453.66	453.58	453.39	453.03	453.67	452.94	453.41
4	11	79	452.83	452.69	452.60	452.66	452.93	452.60	452.70
5	11	79	453.02	453.45	0.00	0.00	453.63	452.84	453.22

RUN DATE 12/27/79

WHITE RIVER SHALE PROJECT

WELLS

1315 W. HWY. 40

P 3

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
5	11	79	0.00	453.76	453.99	454.14	454.19	453.69	453.99
6	11	79	454.26	454.44	454.41	454.28	454.46	454.21	454.35
7	11	79	454.19	453. [illegible]	453.5[illegible]	453.30	454.23	453.16	453.74
8	11	79	453.03	452.81	452.59	452.55	453.13	452.55	452.74
9	11	79	452.56	452.68	452.72	452.84	452.94	452.55	452.70
10	11	79	453.03	453.21	453.18	452.87	453.24	452.71	453.07
11	11	79	452.53	452.46	452.67	453.04	453.22	452.45	452.68
12	11	79	453.43	453.77	453.95	454.07	454.12	453.29	453.80
13	11	79	454.14	454.19	454.20	454.20	454.20	454.12	454.18
14	11	79	454.22	454.35	454.42	454.55	454.66	454.20	454.38
15	11	79	454.95	455.35	455.49	455.56	455.58	454.74	455.34
16	11	79	45[illegible]58	455.54	455.21	454.98	455.58	454.83	455.33
17	11	79	454.66	454.44	454.29	454.11	454.78	454.00	454.38
18	11	79	453.97	453.97	453.97	454.09	454.16	453.97	454.00
19	11	79	454.21	454.32	454.36	454.29	454.36	454.17	454.29
20	11	79	454.11	453.96	453.94	453.98	454.21	453.94	454.00
21	11	79	454.13	454.24	454.50	454.83	454.96	454.08	454.43
22	11	79	455.01	455.12	455.04	454.78	455.14	454.63	454.99
23	11	79	454.39	454.23	454.01	453.99	454.56	453.99	454.16
24	11	79	454.12	454.20	454.21	454.20	454.21	454.06	454.18
25	[illegible]	79	454.14	454.14	454.11	453.81	454.14	453.60	454.05
26	11	79	453.39	453.25	453.28	453.57	453.75	453.25	453.37
27	11	79	453.97	454.21	454.37	454.72	454.89	453.82	454.32
28	11	79	455.08	455.46	455.66	455.77	455.79	454.95	455.50
29	11	79	455.11	454.91	0.00	0.00	155.21	454.87	455.06

Tape Slow

RUN DATE 01/14/80

WHITE RIVER SHALE PROJECT

WELLS

1315 W. HWY. 40

(P 3)

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
3	12	79	0.00	0.00	455.45	455.63	455.68	455.42	455.54
4	12	79	455.69	455.54	454.98	454.48	455.69	454.46	455.17
5	12	79	454.46	454.46	454.46	454.46	454.46	454.46	454.46
6	12	79	454.46	454.46	454.46	454.46	454.46	454.46	454.46
7	12	79	454.46	454.46	454.46	454.46	454.46	454.46	454.46
8	12	79	454.46	454.46	454.46	454.46	454.46	454.46	454.46
9	12	79	454.46	454.46	454.46	454.46	454.46	454.46	454.46
10	12	79	454.46	454.46	454.46	454.46	454.46	454.46	454.46
11	12	79	454.46	454.46	454.46	454.46	454.46	454.46	454.46
12	12	79	454.46	454.47	454.49	454.58	454.67	454.46	454.50
13	12	79	454.81	455.07	455.17	455.19	455.19	454.71	455.06
14	12	79	455.19	455.16	454.90	454.66	455.19	454.60	454.98
15	12	79	454.51	454.47	454.47	454.46	454.56	454.42	454.48
16	12	79	454.47	454.48	454.60	454.79	454.86	454.47	451.58
17	12	79	454.94	455.02	455.04	455.01	455.05	454.89	455.00
18	12	79	454.92	454.79	454.51	454.41	454.97	454.41	454.66
19	12	79	454.41	454.35	454.28	454.20	454.41	454.19	454.31
20	12	79	454.19	454.19	454.12	454.03	454.19	454.00	454.13
21	12	79	453.95	453.81	453.60	453.49	453.99	453.47	453.71
22	12	79	453.42	453.35	453.38	453.50	453.58	453.35	453.41
23	12	79	453.76	454.09	454.24	454.41	454.49	453.63	454.12
24	12	79	454.51	454.50	454.50	454.47	454.55	454.45	454.50
25	12	79	454.37	454.37	454.37	454.37	454.37	454.37	454.37
26	12	79	454.37	454.37	454.36	454.36	454.37	454.36	454.37
27	12	79	454.36	454.46	454.58	454.73	454.83	454.36	454.53
28	12	79	454.98	455.22	455.33	455.34	455.34	454.87	455.22
29	12	79	455.34	455.28	405.59	0.00	455.34	405.59	451.48

455.31

RUN DATE 02/12/80

WHITE RIVER SHALE PROJECT
WELLS
1315 W. HWY. 40

P 3

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
31	12	79	0.00	455.03	455.02	454.92	455.03	454.90	454.99
1	1	80	454.77	454.61	454.45	454.37	454.82	454.37	454.55
2	1	80	454.37	454.41	454.54	454.71	454.79	454.37	454.51
3	1	80	454.81	454.82	454.81	454.69	454.83	454.68	454.78
4	1	80	454.68	454.68	454.68	454.68	454.68	454.68	454.68
5	1	80	454.68	454.68	454.59	454.31	454.68	454.20	454.56
6	1	80	454.12	454.01	453.91	453.86	454.20	453.86	453.98
7	1	80	453.80	453.71	453.61	453.54	453.84	453.51	453.67
8	1	80	453.40	453.30	453.27	453.27	453.49	453.27	453.31
9	1	80	453.27	453.24	452.91	452.44	453.27	452.20	452.97
10	1	80	451.96	451.37	451.10	451.51	452.19	451.08	451.48
11	1	80	452.16	452.62	452.77	452.78	452.80	451.93	452.58
12	1	80	452.84	452.88	452.90	452.90	452.90	452.81	452.88
13	1	80	452.95	453.16	453.32	453.34	453.34	452.90	453.19
14	1	80	453.31	453.18	453.24	453.36	453.39	453.17	453.27
15	1	80	453.43	453.52	453.53	453.44	453.55	453.41	453.48
16	1	80	453.39	453.39	453.39	453.39	453.40	453.39	453.39
17	1	80	453.39	453.39	453.39	453.33	453.39	453.29	453.36
18	1	80	453.15	452.93	452.90	452.95	453.23	452.90	452.98
19	1	80	453.30	453.75	454.06	454.25	454.38	453.11	453.84
20	1	80	454.52	454.69	454.72	454.64	454.72	454.39	454.65
21	1	80	454.57	454.57	454.57	454.57	454.59	454.57	454.57
22	1	80	454.65	454.75	454.78	454.78	454.78	454.59	454.74
23	1	80	454.81	454.88	454.90	454.81	454.90	454.73	454.85
24	1	80	454.58	454.35	454.12	453.82	454.70	453.70	454.22
25	1	80	453.44	453.14	452.91	452.87	453.60	452.86	453.09
26	1	80	452.96	453.07	453.16	453.29	453.35	452.94	453.12
27	1	80	453.36	453.34	453.02	452.77	453.36	452.72	453.12
28	1	80	452.70	452.70	452.70	452.69	452.72	452.63	452.70
29	1	80	452.57	452.27	451.47	451.36	452.61	451.35	451.92
30	1	80	451.58	452.02	452.19	452.35	452.41	451.47	452.02

Clock was running on arrival, must have stopped then restarted!? This happened in calculating

DATE 03/31/80 WHITE RIVER SHALE PROJECT

WELLS 1315 W. HWY. 40 P3

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
1	2	80	0.00	453.59	453.62	453.75	453.79	453.58	453.66
2	2	80	453.88	454.06	454.11	454.14	454.18	453.79	454.05
3	2	80	454.18	454.18	454.12	453.95	454.18	453.93	454.11
4	2	80	453.93	453.94	453.95	454.06	454.10	453.93	453.97
5	2	80	454.15	454.28	454.34	454.30	454.34	454.12	454.27
6	2	80	454.16	453.77	453.38	453.05	454.25	452.76	453.59
7	2	80	452.35	452.05	452.02	452.31	452.61	452.00	452.18
8	2	80	452.80	453.32	453.97	454.14	454.17	452.57	453.61
9	2	80	454.24	454.49	454.55	454.56	454.57	454.18	454.46
10	2	80	454.55	454.45	454.26	454.23	454.58	454.22	454.37
11	2	80	454.19	454.19	454.19	454.19	454.19	454.19	454.19
12	2	80	454.20	454.24	454.25	454.25	454.25	454.19	454.24
13	2	80	454.25	454.25	454.24	454.11	454.26	454.00	454.21
14	2	80	453.92	453.49	453.08	452.97	453.96	452.97	453.34
15	2	80	452.98	453.22	453.38	453.50	453.56	452.97	453.27
16	2	80	453.62	453.73	453.72	453.59	453.74	453.50	453.66
17	2	80	453.40	453.31	453.32	453.45	453.49	453.31	453.37
18	2	80	453.47	453.47	453.47	453.51	453.55	453.47	453.48
19	2	80	453.56	453.54	453.28	452.78	453.56	452.60	453.29
20	2	80	452.33	452.06	452.00	451.99	452.59	451.99	452.09
21	2	80	452.02	452.04	452.01	451.99	452.04	451.99	452.02
22	2	80	451.98	452.06	452.21	452.35	452.37	451.98	452.15
23	2	80	452.37	452.39	452.57	453.35	453.74	452.37	452.67
24	2	80	454.10	454.76	455.26	455.62	455.74	453.89	454.94
25	2	80	455.80	455.87	455.76	455.56	455.87	455.49	455.75
26	2	80	455.46	455.33	455.10	454.97	455.48	454.94	455.22
27	2	80	454.80	454.69	454.52	454.47	454.85	454.47	454.62
28	2	80	454.40	454.09	453.75	453.61	454.40	453.56	453.96
29	2	80	453.51	453.50	453.50	453.66	453.79	453.50	453.55
1	3	80	453.95	454.15	454.19	454.19	454.19	453.82	454.12
2	3	80	454.20	454.13	453.77	453.49	454.20	453.35	453.90
3	3	80	453.16	453.00	0.00	0.00	453.26	452.99	453.09

07/15/80 WELLS

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

P 3

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
3	3	80	0.00	452.81	452.80	452.80	452.81	452.80	452.80
4	3	80	452.83	453.13	453.48	453.81	453.96	452.79	453.31
5	3	80	454.06	454.11	454.03	453.69	454.11	453.52	453.97
6	3	80	453.35	453.20	453.04	452.77	453.49	452.69	453.09
7	3	80	452.41	452.21	452.20	452.26	452.60	452.20	452.27
8	3	80	452.48	452.66	452.83	453.72	454.04	452.39	452.92
9	3	80	454.25	454.64	454.87	454.91	454.94	454.15	454.67
10	3	80	454.94	454.90	454.65	454.42	454.94	454.35	454.73
11	3	80	454.27	453.93	453.56	453.34	454.32	453.29	453.77
12	3	80	453.25	453.46	453.98	454.25	454.29	453.24	453.73
13	3	80	454.44	454.59	454.58	454.50	454.62	454.36	454.53
14	3	80	454.49	454.44	454.29	453.96	454.50	453.83	454.29
15	3	80	453.71	453.58	453.48	453.33	453.81	453.32	453.53
16	3	80	453.37	453.67	454.02	454.27	454.35	453.32	453.83
17	3	80	454.55	454.74	454.72	454.46	454.77	454.39	454.62
18	3	80	454.28	453.87	453.41	453.17	454.34	453.16	453.68
19	3	80	453.16	453.16	453.16	453.38	453.56	453.16	453.22
20	3	80	453.82	454.15	454.23	454.23	454.23	453.64	454.11
21	3	80	454.11	453.76	453.44	453.36	454.23	453.36	453.67
22	3	80	453.36	453.36	453.36	453.22	453.36	453.22	453.32
23	3	80	453.22	453.23	453.22	453.12	453.24	453.02	453.20
24	3	80	452.91	452.57	452.07	451.60	453.02	451.43	452.29
25	3	80	451.23	450.89	450.61	450.55	451.40	450.55	450.82
26	3	80	450.58	450.82	450.89	450.80	450.89	450.55	450.77
27	3	80	450.63	450.47	450.25	450.15	450.72	450.15	450.37
28	3	80	450.15	450.25	450.48	450.78	450.89	450.15	450.41
29	3	80	450.98	451.12	451.20	451.16	451.20	450.91	451.12
30	3	80	450.99	450.61	450.38	450.37	451.08	450.37	450.59
31	3	80	450.42	450.49	450.60	450.77	450.86	450.39	450.57
1	4	80	450.94	451.05	0.00	0.00	451.00	450.89	450.99

DE 07/19/83

WELLS

WHITE RIVER SHALE PROJECT
1315 W. HWY. 40

P 3

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
1	4	80	0.00	451.06	451.04	450.93	451.06	450.82	451.00
2	4	80	450.64	450.39	450.25	450.15	450.74	450.15	450.36
3	4	80	450.20	450.24	450.25	450.25	450.25	450.18	450.24
4	4	80	450.25	450.35	450.48	450.58	450.60	450.25	450.42
5	4	80	450.92	451.27	451.39	451.56	451.65	450.75	451.29
6	4	80	451.81	452.07	452.21	452.32	452.36	451.69	452.10
7	4	80	452.53	452.96	453.35	453.77	453.96	452.38	453.15
8	4	80	454.10	454.25	454.40	454.42	454.44	454.06	454.29
9	4	80	454.44	454.44	454.25	453.89	454.44	453.77	454.25
10	4	80	453.67	453.64	453.64	453.67	453.73	453.64	453.66
11	4	80	453.79	454.03	454.18	454.46	454.62	453.74	454.12
12	4	80	454.80	455.00	455.04	455.10	455.17	454.68	454.99
13	4	80	455.26	455.36	455.25	455.00	455.36	454.95	455.22
14	4	80	454.92	454.78	454.69	454.58	454.95	454.57	454.74
15	4	80	454.59	454.71	454.78	454.88	454.96	454.57	454.74
16	4	80	455.06	455.30	455.50	455.63	455.68	454.98	455.38
17	4	80	455.71	455.77	455.71	455.45	455.78	455.40	455.66
18	4	80	455.29	455.51	455.87	455.91	455.91	455.23	455.64
19	4	80	455.91	455.91	455.88	455.70	455.91	455.60	455.85
20	4	80	455.47	455.38	455.09	454.79	455.53	454.72	455.18
21	4	80	454.69	454.69	454.69	454.70	454.74	454.69	454.69
22	4	80	454.76	454.78	454.64	454.38	454.78	454.30	454.64
23	4	80	454.25	454.23	454.23	454.18	454.30	454.10	454.22
24	4	80	453.98	453.76	453.49	453.32	454.10	453.32	453.64
25	4	80	453.32	453.40	453.46	453.46	453.46	453.32	453.41
26	4	80	453.55	453.77	453.85	453.87	453.89	453.48	453.76
27	4	80	453.95	454.02	454.04	454.04	454.04	453.94	454.01
28	4	80	454.04	454.04	454.04	453.94	454.04	453.94	454.01
29	4	80	453.94	453.84	453.61	453.56	453.94	453.56	453.74
30	4	80	453.56	453.57	453.62	453.72	453.78	453.56	453.62
1	5	80	453.80	453.86	453.87	453.87	453.87	453.79	453.85
2	5	80	453.87	453.87	453.74	453.71	453.87	453.71	453.80
3	5	80	453.76	453.89	453.93	453.99	454.09	453.71	453.89
4	5	80	454.19	454.49	454.67	454.92	455.06	454.12	454.57
5	5	80	455.15	455.26	0.00	0.00	455.27	455.06	455.19

455.31 1300 +41h

WHITE RIVER SHALE PROJECT

1315 W WY.40

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
5	5	80	0.00	455.31	455.31	455.16	455.31	455.11	455.25
6	5	80	455.05	454.93	454.69	454.48	455.11	454.44	454.79
7	5	80	454.42	454.42	454.42	454.42	454.42	454.42	454.42
8	5	80	454.42	454.42	454.42	454.24	454.42	454.20	454.37
9	5	80	454.17	453.86	453.48	453.18	454.20	453.11	453.67
10	5	80	453.03	452.89	452.76	452.72	453.11	452.71	452.85
11	5	80	452.83	452.93	452.94	452.81	452.94	452.75	452.88
12	5	80	452.66	452.49	452.21	451.99	452.73	451.95	452.34
13	5	80	451.87	451.70	451.54	451.48	451.95	451.48	451.65
14	5	80	451.48	451.48	451.52	451.65	451.71	451.48	451.53
15	5	80	451.79	451.94	452.11	452.36	452.48	451.73	452.05
16	5	80	452.65	452.90	452.97	453.05	453.18	452.53	452.89
17	5	80	453.27	453.39	453.56	453.66	453.70	453.22	453.47
18	5	80	453.74	453.75	453.76	453.76	453.76	453.74	453.75
19	5	80	453.76	453.77	453.80	453.92	454.03	453.76	453.81
20	5	80	454.12	454.60	455.19	455.60	455.72	454.06	454.88
21	5	80	455.80	455.82	455.82	455.75	455.82	455.74	455.80
22	5	80	455.71	455.61	455.33	455.06	455.72	454.94	455.43
23	5	80	454.88	454.79	454.60	454.34	454.94	454.26	454.65
24	5	80	454.25	454.09	453.93	453.93	454.26	453.92	454.05
25	5	80	453.97	453.98	453.98	454.02	454.08	453.96	453.99
26	5	80	454.13	454.24	454.29	454.30	454.36	454.08	454.24
27	5	80	454.36	454.36	454.36	454.36	454.36	454.36	454.36
28	5	80	454.27	454.23	454.18	453.89	454.36	453.83	454.14
29	5	80	453.75	453.76	453.82	453.83	453.83	453.75	453.79
30	5	80	453.83	453.83	453.83	453.57	453.83	453.57	453.76
31	5	80	453.57	453.59	453.71	453.74	453.78	453.57	453.65
1	6	80	453.84	453.91	453.75	453.51	453.91	453.48	453.75
2	6	80	453.33	453.10	0.00	0.00	453.46	453.05	453.24

WELLS

WHITE RIVER [illegible] PROJECT
1315 W. HWY. 40

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
2	6	80	0.00	452.71	452.50	452.21	452.74	452.12	452.41
3	6	80	451.98	451.85	451.56	451.41	452.04	451.40	451.70
4	6	80	451.40	451.40	451.27	450.93	451.40	450.90	451.25
5	6	80	450.82	450.79	450.66	450.66	453.90	450.66	450.73
6	6	80	450.69	450.90	451.10	451.57	451.81	450.66	451.07
7	6	80	452.13	452.59	452.81	452.99	453.09	451.93	452.63
8	6	80	453.24	453.47	453.56	453.60	453.69	453.13	453.47
9	6	80	453.75	453.89	453.90	453.89	453.90	453.69	453.85
10	6	80	453.89	453.89	453.89	453.89	453.89	453.89	453.89
11	6	80	453.89	453.89	453.89	453.89	453.89	453.89	453.89
12	6	80	453.89	453.89	453.89	453.90	453.95	453.89	453.89
13	6	80	454.00	454.06	454.07	454.07	454.07	453.97	454.05
14	6	80	454.07	454.11	454.17	454.39	454.54	454.07	454.19
15	6	80	454.73	454.86	454.86	454.85	454.86	454.60	454.82
16	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
17	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
18	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
19	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
20	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
21	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
22	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
23	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
24	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
25	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
26	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
27	6	80	454.85	454.85	454.85	454.85	454.85	454.85	454.85
28	6	80	454.90	455.08	455.10	454.99	455.11	454.86	455.02
29	6	80	454.95	454.85	454.65	454.55	454.95	454.55	454.75
30	6	80	454.55	454.55	454.57	454.56	454.57	454.55	454.56
1	7	80	454.61	454.73	454.77	454.78	454.81	454.58	454.72
2	7	80	454.87	454.91	454.91	454.90	454.91	454.82	454.90
3	7	80	454.89	454.89	454.82	454.63	454.89	454.63	454.81
4	7	80	454.63	454.63	454.63	454.63	454.63	454.63	454.63
5	7	80	454.63	454.63	454.63	454.63	454.63	454.63	454.63
6	7	80	454.63	454.63	454.63	454.63	454.63	454.63	454.63
7	7	80	454.63	454.64	454.68	454.74	454.76	454.63	454.67
8	7	80	454.79	454.84	0.00	0.00	454.84	454.77	454.80

454.13 2200

+13 hrs

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DAY
8	7	80	0.00	454.16	454.44	454.65	454.77	454.13	454.49
9	7	80	454.85	455.06	455.06	454.86	455.10	454.79	454.96
10	7	80	454.76	454.68	454.47	454.18	454.80	454.13	454.53
11	7	80	454.09	454.05	453.98	453.68	454.12	453.61	453.95
12	7	80	453.78	454.12	454.55	454.77	454.82	453.60	454.31
13	7	80	454.83	454.88	454.90	454.84	454.91	454.82	454.86
14	7	80	454.82	454.80	454.65	454.42	454.83	454.36	454.67
15	7	80	454.34	454.34	454.38	454.38	454.40	454.33	454.36
16	7	80	454.47	454.53	454.51	454.28	454.56	454.20	454.45
17	7	80	454.15	454.08	453.88	453.48	454.19	453.41	453.90
18	7	80	453.37	453.39	453.42	453.35	453.42	453.34	453.38
19	7	80	453.33	453.36	453.43	453.43	453.43	453.33	453.39
20	7	80	453.45	453.51	453.50	453.33	453.53	453.29	453.45
21	7	80	453.14	453.06	452.99	452.86	453.20	452.84	453.01
22	7	80	452.89	453.07	453.16	453.12	453.17	452.85	453.06
23	7	80	453.16	453.28	453.31	453.31	453.32	453.12	453.27
24	7	80	453.33	453.37	453.39	453.37	453.43	453.32	453.36
25	7	80	453.53	453.74	453.89	453.97	454.01	453.45	453.78
26	7	80	454.12	454.52	454.73	454.67	454.74	454.01	454.51
27	7	80	454.75	454.83	454.86	454.73	454.87	454.69	454.79
28	7	80	454.68	454.72	454.76	454.62	454.78	454.60	454.70
29	7	80	454.60	454.63	454.68	454.70	454.76	454.60	454.65
30	7	80	454.79	454.87	454.89	454.79	454.93	454.76	454.84
31	7	80	454.80	454.86	454.89	454.83	454.89	454.79	454.85
1	8	80	454.82	454.82	454.79	454.67	454.82	454.67	454.78
2	8	80	454.73	454.83	454.76	454.47	454.85	454.42	454.70
3	8	80	454.37	454.24	454.10	454.02	454.41	454.02	454.18
4	8	80	454.02	454.02	0.00	0.00	454.02	454.02	454.02

E 10/17/80

WHITE RIVER SHALE PROJECT

WELLS 1?15 W. HWY. 40 P 3

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEA
4	8	80	0.00	454.02	453.95	453.68	454.02	453.62	453.84
5	8	80	453.57	453.59	453.65	453.49	453.67	453.45	453.58
6	8	80	453.52	453.73	453.84	453.77	453.84	453.45	453.72
7	8	80	453.72	453.75	453.75	453.54	453.78	453.49	453.69
8	8	80	453.41	453.36	453.24	453.01	453.47	453.00	453.26
9	8	80	453.04	453.20	453.31	453.31	453.32	453.00	453.22
10	8	80	453.24	453.17	453.06	452.87	453.30	452.85	453.08
11	8	80	452.89	453.07	453.14	453.02	453.16	452.86	453.03
12	8	80	453.08	453.19	453.12	453.06	453.21	453.03	453.11
13	8	80	453.16	453.24	453.18	453.14	453.27	453.11	453.18
14	8	80	453.21	453.21	453.02	452.84	453.21	452.84	453.07
15	8	80	452.81	452.69	452.41	452.20	452.84	452.14	452.53
16	8	80	452.09	452.03	451.91	451.70	452.13	451.68	451.93
17	8	80	451.77	452.08	452.31	452.34	452.37	451.68	452.13
18	8	80	452.41	452.52	452.58	452.57	452.59	452.38	452.52
19	8	80	452.63	452.81	453.05	453.41	453.56	452.59	452.98
20	8	80	453.64	453.68	453.62	453.51	453.68	453.50	453.61
21	8	80	453.51	453.60	453.59	453.42	453.64	453.41	453.53
22	8	80	453.41	453.49	453.50	453.38	453.53	453.38	453.45
23	8	80	453.44	453.67	453.84	453.98	454.04	453.38	453.73
24	8	80	454.08	454.26	454.34	454.32	454.36	454.05	454.25
25	8	80	454.34	454.41	454.52	454.53	454.54	454.34	454.45
26	8	80	454.49	454.55	454.57	454.52	454.62	454.49	454.53
27	8	80	454.49	454.41	454.17	454.06	454.52	454.05	454.28
28	8	80	454.05	454.06	454.12	454.12	454.12	454.05	454.09
29	8	80	454.19	454.39	454.54	454.54	454.55	454.14	454.42
30	8	80	454.46	454.35	454.18	454.12	454.49	454.12	454.28
31	8	80	454.12	454.12	454.10	453.99	454.12	453.93	454.08
1	9	80	453.91	453.90	453.76	453.59	453.93	453.57	453.79
2	9	80	453.57	453.58	453.44	453.30	453.59	453.29	453.47
3	9	80	453.29	453.37	0.00	0.00	453.46	453.29	453.33

WHITE RIVER SHALE PROJECT
WELLS 13.5 W. HWY. 40 P 3

DA	MO	YR	0600	1200	1800	2400	MAX	MIN	MEAN/DA
3	9	80	0.00	453.47	453.55	453.72	453.84	453.47	453.62
4	9	80	453.92	454.03	454.07	454.07	454.08	453.90	454.02
5	9	80	454.09	454.23	454.32	454.26	454.33	454.08	454.23
6	9	80	454.31	454.48	454.53	454.44	454.57	454.27	454.44
7	9	80	454.52	454.60	454.69	454.70	454.70	454.50	454.63
8	9	80	454.78	454.86	455.00	455.02	455.02	454.73	454.91
9	9	80	455.01	454.95	454.81	454.63	455.02	454.60	454.85
10	9	80	454.60	454.77	454.82	454.59	454.85	454.59	454.70
11	9	80	454.61	454.63	454.57	454.52	454.63	454.51	454.58
12	9	80	454.59	454.73	454.84	454.85	454.86	454.57	454.75
13	9	80	454.89	454.88	454.68	454.54	454.89	454.54	454.75
14	9	80	454.57	454.69	454.76	454.67	454.77	454.55	454.67
15	9	80	454.69	454.63	454.40	454.22	454.70	454.22	454.49
16	9	80	454.19	454.18	454.19	454.19	454.22	454.18	454.19
17	9	80	454.25	454.34	454.33	454.25	454.36	454.21	454.29
18	9	80	454.29	454.33	454.17	453.98	454.34	453.91	454.20
19	9	80	453.83	453.76	453.69	453.67	453.90	453.64	453.74
20	9	80	453.91	454.08	454.19	454.13	454.21	453.84	454.08
21	9	80	453.98	453.75	453.69	453.81	454.07	453.67	453.81
22	9	80	454.00	454.07	454.08	453.96	454.09	453.94	454.03
23	9	80	453.97	454.03	454.02	453.96	454.06	453.95	453.99
24	9	80	454.03	454.05	454.09	454.11	454.15	453.99	454.07
25	9	80	454.29	454.59	454.64	454.60	454.68	454.18	454.53
26	9	80	454.77	455.04	455.07	454.90	455.14	454.67	454.95
27	9	80	454.87	454.86	454.66	454.35	454.89	454.34	454.69
28	9	80	454.56	454.72	454.68	454.66	454.77	454.46	454.65
29	9	80	454.85	455.14	455.26	455.24	455.27	454.77	455.12
30	9	80	455.20	455.12	454.78	454.52	455.23	454.52	454.91
1	10	80	454.56	454.64	454.66	454.65	454.72	454.52	454.63
2	10	80	454.81	455.07	0.00	0.00	455.17	454.75	454.94

WELLS P-4, G-5, G-8, G-8a, G-10, G-11, G-15, G-21

VTN
Vernal, Utah

WRSP
1517-165

To: Swain Munson

From: Bill Hale

Re: November 1979 Static Well Measurements -- taken with a sounder

Well	Date	Time	Depth to Water Level
P-4	11-19-79	1135	265.80
G-8	11-19-79	1115	53.60
G-8A	11-19-79	1100	48.25
G-5	11-20-79	1020	457.83
G-10	11-20-79	1240	316.00
G-11	11-20-79	1005	465.55
G-15	11-20-79	1200	507.30
G-21	11-20-79	1115	429.70

Well	Date	Time	pH	Temp.	Cond.	SWL *
AG-6-Lower	11-15-79	1215	7.5	13.4	1225	18.87
AG-3-1	11-15-79	1200	7.5	13.1	3900	12.54
AG-3-3	11-15-79	1155	8.0	12.5	3100	12.92

* from Bill Hale verbally, 12/5/79

Job 1517-165

SEMIANNUAL DEEP WELL MEASUREMENTS
OIL SHALE TRACTS U-a/U-b
(taken with a sounder)

Well	Date	Time	Depth
P-4	4-21-80	1215	265.00
G-8	"	1150	52.70
G-8A	"	1205	41.70
G-5	"	1120	458.10
G-10	"	0955	308.70
G-11	"	1100	466.90
G-15	"	1035	507.80
G-21	"	1015	428.10

Alluvial Wells

	Well	Date	Time	Temp.	Cond.	pH	Depth
AG-6-1	AG-6-L	4/17/80	1300	14.0	1400	8.0	18.50
	AG-3-1	4/17/80	1210	11.0	3500	7.8	12.52
	AG-3-3	4/17/80	1200	11.0	3050	7.8	12.20

ALLUVIAL AQUIFERS

WELLS AG-3-1, AG-3-3, AG-6-1

VTN
Vernal, Utah

IWRSP
1517-165

To: Swain Munson

From: Bill Hale

Re: November 1979 Static Well Measurements -- taken with a sounder

Well	Date	Time	Depth to Water Level
P-4	11-19-79	1135	265.80
G-8	11-19-79	1115	53.60
G-8A	11-19-79	1100	48.25
G-5	11-20-79	1020	457.83
G-10	11-20-79	1240	316.00
G-11	11-20-79	1005	465.55
G-15	11-20-79	1200	507.30
G-21	11-20-79	1115	429.70

Well	Date	Time	pH	Temp.	Cond.	SWL *
AG-6-Lower	11-15-79	1215	7.5	13.4	1225	18.87
AG-3-1	11-15-79	1200	7.5	13.1	3900	12.54
AG-3-3	11-15-79	1155	8.0	12.5	3100	12.92

* from Bill Hale verbally, 12/5/79

SEMIANNUAL DEEP WELL MEASUREMENTS
OIL SHALE TRACTS U-a/U-b
(taken with a sounder)

Well	Date	Time	Depth
P-4	4-21-80	1215	265.00
G-8	"	1150	52.70
G-8A	"	1205	41.70
G-5	"	1120	458.10
G-10	"	0955	308.70
G-11	"	1100	466.90
G-15	"	1035	507.80
G-21	"	1015	428.10

Alluvial Wells

	Well	Date	Time	Temp.	Cond.	pH	Depth
AG-6-1	AG-6-L	4/17/80	1300	14.0	1400	8.0	18.50
	AG-3-1	4/17/80	1210	11.0	3500	7.8	12.52
	AG-3-3	4/17/80	1200	11.0	3050	7.8	12.20

Water Year 1979-1980 | General Location- [illegible] Fowler | State Code-

Date	Time	Tape	Cut	S.W.L.	Total Gallons Produced	PH ~~Flow~~	Pressure (PSI)	Temp.	Cond.
11-15-79	1215			18.87		7.5		13.4	1225
4-17-80	1300			18.50		8.0		14.0	1400
[illegible]-26-80	1030			17.06		8.0		14.0	1300
[illegible]	[illegible]45			1[illegible].15		[illegible]		12.8	1[illegible]00
	(used electric sounder)								

Water Year 1979-1980 General Location- (illegible) State Code-

Date	Time	Tape	Cut	S.W.L.	Total Gallons Produced	Flow Pf	Pressure (PSI)	Temp.	Cond.
11-15-79	1200			12.54		7.5		13.1	3900
4-17-80	1210			12.52		7.8		11.0	3500
6-24-80	1105			10.45		8.0		12.0	3200
9-30-80	1025			13.20		7.2		13.8	3300
	(used electric sounder!)								

Water Year 1979-1980 General Location- HG-3-3 (Upton) State Code-

Date	Time	Tape	Cut	S.W.L.	Total Gallons Produced	D/H Flow	Pressure (PSI)	Temp.	Cond.
11-15-79	1155			12.92		8.0		12.5	3100
4-17-80	1200			12.70		7.8		11.0	3050
6-24-80	1100			10.13		7.5		12.5	2900
9-30-80	1035			12.76		7.4		14.2	2820
	(used electric sounder)								

Water Year 1977-1980 General Location- [illegible] River State Code-

Date	Time	Tape	Cut	S.W.L.	Total Gallons Produced	Pit Flow	Pressure (PSI)	Temp.	Cond.
11-15-79	1215			18.87		7.5		13.4	1225
4-17-80	1300			18.50		8.0		14.0	1400
6-26-80	1030			17.06		8.0		14.0	1300
9-25-80	1105			19.15		8.0		13.8	1300
	(used electric sounder)								
				16.395		7.875		13.9	1206
		mean →		18.40		7.9		13.8	1300
					Not included in Table				

WATER LEVEL 1977-1978 — GENERAL LOCATION — SERIES CODE —

Date	Time	Tape	Cut	S.W.L.	Total Gallons Produced	Flow DH	Pressure (PSI)	Temp.	Cond.
11-15-79	1200			12.54		7.5		13.1	3900
4-17-80	1210			12.52		7.8		11.0	3500
6-24-80	1105			10.45		8.0		13.0	3200
9-30-80	1025			13.20		7.2		13.8	3300
	(used	electric	sounder)						
		calc. mean		12.1775		7.625		12.725	3475
	sig value	mean →		12.18		7.6		12.7	3500
						Not included			
						in Table			

Water Yr 1979-1980 General Location T(7-) -) (Upper) State Code-

Date	Time	Tape	Cut	S.W.L.	Total Gallons Produced	pH Flow-	Pressure (PSI)	Temp.	Cond.	
11-15-79	1155			12.92		8.0		12.5	3100	→31
4-17-80	1200			12.20		7.8		11.0	3050	31
6-24-80	1100			10.13		8.5		12.5	2910	29
9-30-80	1035			12.76		7.4		14.2	2820	28
	(used electric sounder!)									
		calc. mean		12.0025		7.925		12.55	2975	
		sig value mean		12.00		7.9		12.6	3000	
						Not included in Table				

PRECIPITATION
EVAPORATION

WRSP EVAPORATION PANS

EVAP - 2

79 + 80

Date	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2									.700			.825
3										.050		
4											.150	.425
5									1.050			
6												
7										1.213	1.300	
8												.450
9									1.100			
10										.800		
11												-0-
12								Shut	1.100		1.550	
13												
14										1.200	.500	
15								.300				.725
16									1.500			
17										.975		
18											.700	.650
19								.200	.775			
20												
21										1.575	.950	
22								.450				1.050
23									1.450			
24										.825		
25											-0-	.400
26									1.350			
27								1.400				
28										1.050	.975	
29												
30								.750	1.400			.675
31										1.050		
Tot.								3.400	10.425	8.738	5.975	5000

EVAP - 13

79 - 80

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2									.475			.625
3										0		
4											.950	.275
5									.600			
6												
7										.900	.700	
8												.300
9									.900			
10										.550		
11												-0-
12								dirt	.750		1.250	
13												
14										.600	.775	
15								.135				.450
16									.950			
17										.750		
18								(A)			.375	.575
19								0	.600			
20												
21										.950	.675	
22								.275				.575
23									.900			
24										.450		
25											-0-	.325
26									.775			
27								1.150				
28										.700	.150	
29												
30								.500	.950			.550
31										1.000		
Tot.								2.010	6.900	5.855	4.475	3.675

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2									.112			.188
3										.013		
4											.200	.075
5									.150			
6												
7										.183	.133	
8												.050
9									.213			
10										.138		
11												Rain -0-
12								start	.175		.263	
13												
14										.138	.013	
15								.025				.088
16									.206			
17										.175		
18											.113	.075
19								0	.150			
20												
21										.213	.138	
22								.075				.100
23									.213			
24										.113		
25											.110	.075
26									.200			
27								.225				
28										.175	.038	.1
29												
30								.112	.225			.106
31										.150		
Tot.								.437	1.644	1.298	.948	.757

EVAP - 13
(old spot - 5 gal)
79 - 80

e	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2									.150			.200
3										.025		
4											.250	.100
5									.175			
6												
7										.233	.175	
8												.075
9									.250			
10										.175		
11												-0-
12								start	.200		.325	
13												
14										.150	.075	
15								.025				.088
16									.275			
17										.200		
18								Pint			.125	.113
19								0	.175			
20												
21										.238	.150	
22								.075				.150
23									.275			
24										.138		
25											-0-	.081
26									.238			
27								.225				
28										.200	.150	
29												
30								.112	.275			.125
31										.200		
Tot.								.437	2.013	1.559	1.150	.932

EVAP-13) 5-80
(new spot)
7-80

Date	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												.79
16												
17												
18												
19												
20												
21												
22												
23												
24												.03
25												
26												
27												
28											1.15	
29					.69					.51		
30			.46			.63	.15					
31		.43		.94				.96				
Tot.		.43	.46	.94	.69	.63	.15	.96	0	.51	1.15	.82

111

80

99

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												1,35
12												
13												
14												
15											30	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25											2.13	
26												
27												
28												
29												
30					53							
31			.42				.55					
	.15	.51		1.03		.25		.86				
Tot:	.15	.51	.42	1.03	.53	.25	.55	.86	0	.62	2.43	1.35

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												1.11
12												
13												
14												
15											.37	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26											1.25	
27												
28												
29					.72							
30			.45	1.01			.51					
31	.15	.51				.88		.84				
Tot.	.15	.51	.45	1.01	.72	.88	.51	.84	0	.52	1.62	1.11

'25 - '13

'79 - '80

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												1.02
12												
13												
14												
15											.39	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25											1.18	
26												
27												
28												
29					.50							
30			.47				1.5					
31	1.47	.51		.93		.75		1.05				
Tot.	1.47	.51	.47	.93	.50	.75	1.65	1.05	0	.87	1.47	1.02

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												.87
12												
13												
14												
15											.24	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25											1.13	
26												
27												
28												
29												
30			.51	.91								
31	.44	.45				.95	1.03	.51				
Tot.	.44	.45	.51	.91	—	.95	1.03	.51	0	.26	1.42	.87

Clear Lake Tx Plant (2nd)

2nd Pass

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												.82
12												
13												
14												
15											.40	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26											1.22	
27												
28												
29					.76							
30			.44	1.08			.89					
31	1.43	.43				.93		.31				
Tot.	1.43	.43	.44	1.08	.76	.93	.89	.31	0	.37	1.62	.82

...e	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												1.12
12												
13												
14												
15											.07	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26											2.21	
27												
28												
29					82							
30			.46	1.01			.62					
31	.14	.55				.93		.32				
Tot.	.14	.55	.46	1.01	.82	.93	.62	.32	0	.50	2.28	1.12

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												1.16
12												
13												
14												
15											.40	
16												
17												
18												
19												
20												
21												
22												
23												
24												
25											2.01	
26												
27												
28												
29					.82							
30			.38	1.25			.85					
31		.61				.95		1.22				
Tot.		.61	.38	1.25	.82	.95	.85	1.22	0	.44	2.41	1.16

Date	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1								.10		.10		
2							.10			.20		
3										.10		
4								.10				
5												
6												
7												.20
8								.10				.10
9												
10												1.10
11								.10				
12								.20				
13							.10				.10	
14												
15											.20	
16								.40				
17												
18												
19												
20	1.10											
21												
22										.10		
23											.30	
24												
25											.80	
26												
27												
28												
29	.30											
30							.20					
31												
Total	1.40						.40	1.0	0	.50	1.40	1.40

APR 29 '80

DELETED through summer

Station: ARA-2 79-80

Date	Time	Tape Reading	Precipitation
Oct 01 1979	1300	1.2	-0-
" 20 "	0645	1.3	.10
	0800	1.4	.10
	0900	1.5	.10
	0945	1.6	.10
	1030	1.7	.10
	1130	1.8	.10
	1230	1.9	.10
	1300	2.0	.10
	1415	2.1	.10
	1515	2.2	.10
" 20 "	1615	2.3	.10
Oct, 29, 79	0015	2.4	.10
	0145	2.5	.10
	0400	2.6	.10
		total	1.40
April 01 1980	0945	.2	start
" 02 "	0845	.3	.10
" 13 "	1030	.4	.10
" 30 "	1245	.5	.10
" 30 "	1330	.6	.10
		April total	.40
May 01 1980	1400	.6	start
" 01 "	0845	.7	.10
" 04 "	2215	.8	.10
" 08 "	2115	.9	.10
" 11 "	1645	1.0	.10
" 12 "	0945	1.2	.20

0.1"

Station: ARA-2 79-80

Date	Time	Tape Reading	Precipitation
May 16 1980	1515	1.3	.10
" " "	2015	1.4	.10
" " "	2045	1.5	.10
" " "	2130	1.6	.10
		May Total	1.0
June 02 1980	0915	1.7	Start June
" 01 1980	2300	1.8	.10
" 02 "	0530	1.9	.10
" 02 "	0745	2.0	.10
" 03 "	1715	2.1	.10
" 22 "	1615	2.2	.10
		June Total	.50
Aug-04-1980	0945	2.3	Start
" 13 "	1700	2.4	.10
" 15 "	0215	2.5	.10
" 15 "	0915	2.6	.10
" 21 "	1645	2.7	.10
" 22 "	1730	2.8	.10
" 23 "	1500	2.9	.10
" 24 "	1145	3.0	.10
" 25 "	1300	3.2	.40
" 26 "	1215	3.7	.40
" 27 "	1220	3.9	.20
" 28 "	1300	4.2	.30
" 29 "	1245	4.3	.10

Station: ARA-2 79-80

Date	Time	Tape Reading	Precipitation
Aug 25, 80	1645	4.5	.20
" 25,	1715	4.6	.10
		Aug total	2.40
Sept 01 1980	1030	4.6	Start
" 07 "	1200	4.7	.10
" 07	1730	4.8	.10
" 08 "	0230	4.9	.10
" 10 "	1100	5.0	.10
" 10 "	1115	5.3 "	.30
" 10 "	1130	5.6	.30
" 10 "	1200	5.7	.10
" 10 "	1300	5.8	.10
" 10 "	1330	5.9	.10
" 10 "	1415	6.0	.10
" 30 1980	end		1.40
		total	

Date	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1							.10	.10		.10		
2										.20		
3										.10		
4								.10				
5												
6						.10						
7					.20	.20						.30
8								.30				.10
9												
10				.10								.70
11								.20				
12								.10		.10		
13							.10					
14				.20							.10	
15											.20	
16								.30				
17											.10	
18					.10							
19				.10	.10							
20	1.0	.40			.20							
21												
22			.40									
23		.10			.10					.10	.30	
24						.10				.10		
25						.20					.80	
26												
27								.10				
28				.30								
29	.40			.20								
30							.20					
31						.10						
Tot.	1.40	.50	.40	.90	.70	.70	.40	1.20	0	.70	1.50	1.10

1.2
.60
.10

Station: ARA-13 79-80

Date	Time	Tape Reading	Precipitation
Oct 01 1979	1400	-9.4	-start
" 20 "	0645	-9.5	.10
" 20 "	0815	-9.6	.10
" 20 "	0915	-9.7	.10
" 20 "	1015	-9.8	.10
" 20 "	1115	-9.9	.10
" 20 "	1230	0	.10
" 20 "	1345	.1	.10
" 20 "	1430	.2	.10
" 20 "	1530	.3	.10
" 20 "	1630	.4	.10
" 29, 79	0115	.5	.10
"	0300	.6	.10
"	0430	.7	.10
"	1145	.8	.10
			1.40
		Oct - total	
Nov 05 1979	1000	.0	start
" 19, "	2115	.1	.10
" 20, "	0245	.2	.10
" 20, "	0545	.3	.10
" 20, "	2000	.4	.10
" 23, "	1700	.5	.10
		Nov, total	.50

Station: ARA-13 79-80

Date	Time	Tape Reading	Precipitation
MARCH 03 1980	1300	2.5	Start
" 06 "	1245	2.6	.10
" 07 "	0230	2.7	.10
" 07 "	0400	2.8	.10
3-24-80	2000	2.9	.10
-25-	1400	3.0	.10
-25-	2300	3.1	.10
-31-	0930	3.2	.10
		March total	— .70
April 01 1980	1215	-9.3	start
" "	1230	-9.4	.10
" 13 "	1400	-9.5	.10
" 30 "	1345	-9.6	.10
" 30 "	1430	-9.7	.10
		April total	.40
May 01 1980	2400	-9.7	Start
" 01 "	0745	-9.8	.10
" 08 "	2300	-9.9	.10
" 09 "	2000	.1	.10
" 09 "	2015	.2	.10
" 09 "	2130	.3	.10
" 11 "	1230	.4	.10
" 11 "	1245	.5	.10
" 12 "	1920	.6	.10
" 16 "	1545	.7	.10
" 16 "	2030	.8	.10
" 16 "	2115	.9	.10
" 17 "	1245	1.0	.10
		May total	— 1.20

Station: ARA-13

1979-80

Date	Time	Tape Reading	Precipitation
DEC. 03 1979	1430	.5	— start
" 21 "	2200	.6	.10
" 22 "	0030	.7	.10
" 23 "	0545	.8	.10
" 27 "	0930	.9	.10
		DEC. — TOTAL	.40
JAN 07 1980	1430	.90	start
" 10 "	1320	1.0	.10
" 14 "	0900	1.1	.10
" 14 "	1030	1.2	.10
" 19 "	0915	1.3	.10
" 27	0515	1.4	.10
28	1130	1.5	.10
28	2015	1.6	.10
" 29 "	0100	1.7	.10
29	0545	1.8	.10
		JAN 1980 — TOTAL —	.90
Feb 05 1980	1315	1.8	start
07 "	0245	1.9	.10
07 "	1145	2.0	.10
" 18 "	1600	2.1	.10
" 19 "	0245	2.2	.10
" 20 "	0200	2.3	.10
" 20 "	0745	2.4	.10
23 "	1415	2.5	.10
		FEB. total =	.70

Station: ARA-13 1979-80

Date	Time	Tape Reading	Precipitation
June 02 1980	1115	1.0	Start
		total =	-0-
July 01, 1980	0045	2.1	.10
" 02, "	0100	1.2	.10
" 02 "	0830	1.3	.10
" 03 "	1100	1.4	.10
" 12 "	1315	1.5	.10
" 13 "	1645	1.6	.10
" 24 "	2200	1.7	.10
		July total	.70
Aug 04 1980	1915	1.7	Start
" 14 "	2145	1.8	.10
" "	0330	1.9	.10
" 15 "	0400	2.0	.10
" "	[illegible]	2.1	.10
" 23 "	1800	2.2	.10
" 23 "	1900	2.3	.10
" 24 "	1945	2.4	.10
" 25 "	1315	2.5	.10
" 25 "	[illegible]	2.7	.20
" "	[illegible]	2.8	.10
" "	1400	2.9	.10
" "	[illegible]	3.0	.10
" "	[illegible]	3.1	.10
" "	[illegible]	3.2	.10
		Aug total	1.50

Date	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							.10					
2												
3										.40		
4												
5												
6												
7								.10				.40
8								.30				.20
9							.10					
10												.50
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22										.20		
23							.10					
24												
25							.10					
26							.12					
27												
28												
29												
30							.10					
31	1.40											
Tot.	1.40						.60	.40	0	.60	2.60	1.10

Station: ARS-9 79-80

Date	Time	Tape Reading	Precipitation
Oct 01, 1979	1330	battery went dead, lost data picked up —	1.40
		Total	1.40
April 01 1980	1115	0	Start
" 02 "	0830	.1	.10
" 09 "	1000	.2	.10
" 23 "	1330	.3	.10
" 25 "	2100	.4	.10
" 26 "	0300	.5	.10
" 30 "	0630	.6	.10
		april total	.60 ??
The tape was 5 days slow, so these Date, Time are not accurate!			
May 05 1980	1000	.6	Start
07 "	2000	.7	.10
05 "	1830	.8	.10
08 "	2045	.9	.10
08 "	2215	1.0	.10
Unit Stopped on the 11th, clock failed!			

Station: ARB-9 1979-80

Date	Time	Tape Reading	Precipitation
June 02 1980	1030	1.9	Start
" 15 "	0215	2.2	.30
" 15 "	0230	2.3	.10
			.40
checked had stopped tape clear! 6 days?		(June) total —	5
July 03 1980	1315	2.3	Start
" 12 "	tape stopped advancing on this date!	Continuous rec 2.5	.20 7/12/80 ??
Aug 04 1980	1130	2.5	Start
" 05 "	0930	5.1	
[illegible]	[illegible]	[illegible]	[illegible]
Oct 03 1980	1130	5.1	Start
" 04 "	1115	5.2	.10
" 04 "	1715	5.4	.20
" 05 "	1730	5.5	.10
" 06 "	0315	5.6	.10
" 09 "	1330	5.7	.10
" 10 "	1130	5.8	.10
" 10 "	1300	5.9	.10
" 10 "	1515	6.0	.10
" 10 "	1330	6.1	.10
" 10 "	1400	6.2	.10
			1.10
Oct 30 1980	end!	Sept - TOTAL	1.10

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Baeser Wash

Location of Station SE¼ SE¼ Section 12 Township 7S Range 21E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-3-79	5.1		
12-7-79	6.5 ~~6.9~~	1.4 ~~1.8~~	1.4 ~~1.8~~
1-10-80	7.1 ~~7.5~~	.6	2.0
1-28-80	7.7 ~~8.1~~	.6	2.6
2-29-80	9.2	1.5	4.1
3-25-80	9.5	0.3	4.4
4-27-80	9.9	0.4	4.8
6-4-80	11.1	1.2	6.0
7-1-80	11.2	0.1	6.1
7-31-80	11.5	0.3	6.4
8-30-80	11.5	0	6.4
9-30-80	12.6	1.1	7.5

Total Inches for Water Year 7.5

Comments: _____

Summary for 1980 Water Year

RECEIVED DEC 3 1980

Location	years of data	Accum. moisture	79-80 precip.	average precip.	79-80 % of average
Seely Cabin	15	179.2	15.4	11.9	129%
Mayo	15	190.1	13.6	12.7	107%
Boulevard Ridge	15	210.5	19.7	14.0	141%
Cottonwood	7	56.1	11.6	8.0	145%
Winter Ridge	14	168.4	14.1	12.0	118%
South Canyon	7	122.2	22.3	17.5	127%
Tom Patterson	15	203.8	20.2	13.6	149%
Kruger Fritz	5	38.8	10.3	7.8	132%
Basec wash	5	29.5	7.5	5.9	127%
Deedman	5	38.6	9.0	7.7	117%
Davis Spring	5	45.7	10.4	9.1	114%
Miners Gulch	5	63.2	16.3	12.6	129%
Blue mountain	5	68.1	16.1	13.6	118%

Dear Mr. Munson,

Attached are all of the precip. data we have for 1980 as you requested. If you need anything else please let us know.

Alan Wood.

BLM PRECIPITATION GAGES

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Seely Cabin

Location of Station SW¼ Section 5 Township 12S Range 24E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-3-79	6.2		
12-10-79	8.2	2.0	2.0
1-8-80	8.8	.6	2.6
1-31-80	9.7	.9	3.5
2-27-80	11.3	1.6	5.1
3-26-80	12.6	1.3	6.4
4-29-80	13.8	1.2	7.6
6-4-80	15.1	1.3	8.9
7-2-80	15.8	0.7	9.6
7-31-80	16.0	0.2	9.8
9-4-80	20.0	4.0	13.8
9-30-80	21.6	1.6	15.4

Total Inches for Water Year ____

Comments: ____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Kruger Fritz

Location of Station SW¼ SE¼ Section 31 Township 9S Range 23E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-3-79	5.1		
12-7-79	6.9	1.8	1.8
1-10-80	7.5	.6	2.4
1-28-80	8.2	.7	3.1
3-5-80	9.5	1.3	4.4
3-25-80	10.2	0.7	5.1
4-29-80	10.7	0.5	5.6
6-4-80	11.9	1.2	6.8
7-1-80	12.2	0.3	7.1
7-31-80	13.7	0.5	7.6
9-4-80	14.1	1.4	9.0
9-30-80	15.4	1.3	10.3

Total Inches for Water Year 10.3

Comments:

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Kruger Fritz

Location of Station SW¼ SE¼ Section 31 Township 9S Range 23E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-3-79	5.1		
12-7-79	6.9	1.8	1.8
1-10-80	7.5	.6	2.4
1-28-80	8.2	.7	3.1
3-5-80	9.5	1.3	4.4
3-25-80	10.2	0.7	5.1
4-29-80	10.7	0.5	5.6
6-4-80	11.9	1.2	6.8
7-1-80	12.2	0.3	7.1
7-31-80	13.7	0.5	7.6
9-4-80	14.1	1.4	9.0
9-30-80	15.4	1.3	10.3

Total Inches for Water Year 10.3

Comments:

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station: Tom Patterson

Location of Station SW¼ Section 30 Township 15S Range 25E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-4-79	6-1		
12-6-79	7.8	1.7	1.7
1-1-80	NA		
2-1-80	NA		
3-1-80	NA		
4-1-80	NA		
5-1-80	NA		
6-2-80	22.7	14.9	16.6
7-1-80	23.0	0.3	16.9
7-29-80	24.2	1.2	18.1
" recharge	6.2		
9-3-80	7.5	1.3	19.4
9-30-80	9.3	0.8	20.2

Total Inches for Water Year 20.2

Comments: _____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Tom Patterson

Location of Station SW¼ Section 30 Township 15S Range 25E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-4-79	6-1		
12-6-79	7.8	1.7	1.7
1-1-80	NA		
2-1-80	NA		
3-1-80	NA		
4-1-80	NA		
5-1-80	NA		
6-2-80	22.7	14.9	16.6
7-1-80	23.0	0.3	16.9
7-31-80	24.2	1.2	18.1
" recharge	6 2		
9-3-80	7.5	1.3	19.4
9-30-80	9.3	0.8	20.2

Total Inches for Water Year 20.2

Comments: _____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Tom Patterson

Location of Station SW¼ Section 30 Township 15S Range 25E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-4-79	6-1		
12-6-79	7.8	1.7	1.7
1-1-80	NA		
2-1-80	NA		
3-1-80	NA		
4-1-80	NA		
5-1-80	NA		
6-2-80	22.7	14.9	16.6
7-1-80	23.0	0.3	16.9
7-29-80	24.2	1.2	18.1
" recharge	6.2		
9-3-80	7.5	1.3	19.4
9-30-80	9.3	0.8	20.2

Total Inches for Water Year 20.2

Comments: _____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Winter Ridge

Location of Station NW¼ Section 26 Township 15S Range 21E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-4-79	6.2		
12-6-79	8.0	1.8	1.8
1-11-80	8.6	.6	2.4
2-1-80	N/A	-	
3-1-80	N/A	-	
3-31-80	13.5	4.9	7.3
4-30-80	14.6	1.1	8.4
6-3-80	17.4	2.8	11.2
7-2-80	17.8	0.4	11.6
8-4-80	18.0	0.2	11.8
9-3-80	19.6	1.6	13.4
9-30-80	20.3	0.7	14.1

Total Inches for Water Year 14.1

Comments:

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station MAYO

Location of Station NW¼ NW¼ Section 11 Township 14S Range 22E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-5-79	7.3		
12-4-79	8.3	1.0	1.0
1-11-80	8.7	.4	1.4
1-29-80	10.2	1.5	2.9
2-29-80	12.2	2.0	4.9
3-26-80	13.5	1.3	6.2
4-30-80	14.8	1.3	7.5
6-3-80	17.2	2.4	9.9
6-30-80	17.7	0.5	10.4
7-25-80	18.0	0.3	10.7
9-2-80	20.2	2.2	12.9
9-30-80	20.9	0.7	13.6

Total Inches for Water Year 13.6

Comments: _____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station DEADMAN

Location of Station SW/4 SW/4 Section 13 Township 7S Range 24E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-9-79	6.3		
12-7-79	7.8	1.5	1.5
1-10-80	8.4	.6	2.1
1-28-80	9.1	.7	2.8
2-22-80	10.5	1.4	4.2
3-25-80	11.0	0.5	4.7
4-29-80	11.1	0.1	4.8
6-6-80	12.5	1.4	6.2
7-1-80	12.6	0.1	6.3
7-31-80	13.2	0.6	6.9
9-4-80	14.5	1.3	8.2
9-29-80	15.3	0.8	9.0

Total Inches for Water Year 9.0

Comments: _____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station CoHonwood

Location of Station NE1/4 SW1/4 Section 21 Township 11S Range 21E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-5-79	5.6		
12-10-79	7.3	1.7	1.7
1-11-80	7.8	.5	2.2
1-29-80	8.7	.9	3.1
2-29-80	9.7	1.0	4.1
3-30-80	10.5	0.8	4.9
4-30-80	11.3	0.8	5.7
6-3-80	13.3	2.0	7.7
6-30-80	13.6	0.3	8.0
7-24-80	14.8	1.2	9.2
8-30	15.8	1.0	10.2
9-30-80	17.2	1.4	11.6

Total Inches for Water Year 11.6

Comments: _____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Davis Spring

Location of Station SW1/4 NW1/4 Section 1 Township 6S Range 24E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-9-79	6-1		
12-5-79	7.7	1.6	1.6
1-9-80	8.3	.6	2.2
1-28-80	9.4	1.1	3.3
2-1-80	NA		
3-25-80	12.1	2.7	6.0
4-29-80	12.3	0.2	6.2
6-6-80	14.0	1.7	7.9
6-30-80	14.1	0.1	8.0
7-31-80	14.7	0.6	8.6
9-4-80	15.3	0.6	9.2
9-29-80	16.5	1.2	10.4

Total Inches for Water Year 10.4

Comments: _____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Miners Gulch

Location of Station SW¼ Section 24 Township 5S Range 25E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-9-79	5.1		
12-5-79	7.3	2.2	2.2
1-9-80	7.9	.6	2.8
2-1-80	NA		
4-22-80	12.0	4.1	6.9
3-25-80	13.2	1.2	8.1
4-29-80	13.7	0.5	8.6
6-6-80	17.2	3.5	12.1
6-30-80	17.3	0.1	12.2
7-31-80	18.2	0.9	13.1
9-9-80	20.4	2.2	15.3
9-29-80	21.4	1.0	16.3

Total Inches for Water Year 16.3

Comments: _____

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Boulevard Ridge

Location of Station NE¼ SW¼ Section 17 Township 13S Range 25E

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-3-79	5.1		
12-10-79	8.2	3.1	3.1
1-1-80	NA		
2-1-80	NA		
3-1-80	NA		
4-1-80	NA		
4-29-80	17.5	9.3	12.4
6-2-80	21.0	3.5	15.9
7-2-80	21.8	0.8	16.7
7-31-80	22.1	0.3	17.0
"	Recharge 4.0		
9-4-80	5.9	1.9	18.9
9-30-80	6.7	0.8	19.7

Total Inches for Water Year 19.7

Comments:

Precipitation Record

Readings:

Date of Reading	Station	
10-2-79		
10-3-79		2
10-9-79		
10-10-79		

BUREAU OF LAND MANAGEMENT
Vernal District Office
Precipitation Record

Name of Precipitation Station Blue mtn.

Location of Station SW¼ Section 20 Township 5 Range 25

Water Year - Beginning 10-1-79 Ending 9-30-80

A. Readings:

Date of Reading	Station Reading	Inches from Last Reading	Accumulative Inches
10-9-79	6.7		
12-5-79	8.7	2.0	2.0
1-9-80	9.5	.8	2.8
2-1-80	NA		
3-1-80	NA		
4-1-80	NA		
5-1-80	NA		
5-27-80	19.9	10.4	13.2
6-30-80	19.9	0	13.2
7-[illegible]-80	21.6	1.7	14.9
7-31-80	22.8	1.2	16.1

Total Inches for Water Year 16.1

Comments: